

On page 48, line 14, delete "oleocetylhydroxyethylammonium" and replace with

*a1* --oleocetyldimethylhydroxyethylammonium--.

On page 49, line 9, in formula (VII), change "<sub>2</sub> X" to --2 X--.

IN THE CLAIMS:

Please cancel claims 1 and 9-31 without prejudice or disclaimer, amend claims 2-8, and add new claims 32-77 as follows:

In claim 2, lines 1-2, delete "Composition according to claim 1, characterized in that" and replace with -A composition according to claim 32, wherein<sup>1</sup>.

*a2* on page 80, line 2, after "(I51); delete "and";

on page 80, line 4, after "(I53); insert --and--;

on page 80, line 6, delete ";" and insert a period after "(I54)".

*a3* 3. (Amended) A composition [Composition] according to Claim 2, [characterized in that] wherein the cationic direct dyes are chosen from the compounds having [correspond to the] structures (I1), (I2), (I14), and (I31).

*a4* In claim 4, lines 1-2, delete "Composition according to claim 1, characterized in that" and replace with -A composition according to claim 32, wherein<sup>1</sup>.

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In claim 5, lines 1-2, delete "Composition according to claim 1, characterized in that" and replace with -A composition according to claim 32, wherein-

a5

6. (Amended) A composition [Composition] according to Claim 5, [characterized in that] wherein the cationic direct dyes of formula (III) are chosen from the compounds [corresponding to the] having structures (III4), (III5) and (III13).

a6

In claim 7, lines 1-2, delete "Composition according to claim 1, characterized in that" and replace with -A composition according to claim 32, wherein-

a7

In claim 8, lines 1-2, delete "Composition according to claim 1, characterized in that" and replace with -A composition according to claim 32, wherein-

a8

on page 104, line 1, after "(IV)<sub>76</sub>", insert --; and--.

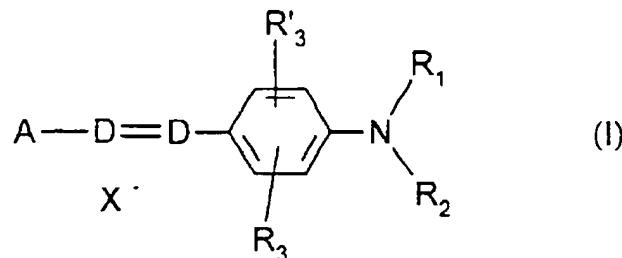
on page 104, line 2, insert a period after "(IV)<sub>77</sub>".

Please add new claims 32 to 77 as follows:

--32. A composition for dyeing keratinous fibers comprising, in a medium suitable for dyeing,

(i) at least one cationic direct dye chosen from:

a) cationic direct dyes of formula (I):



in which:

D is a nitrogen atom or a -CH group,

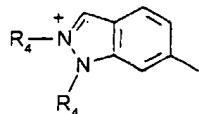
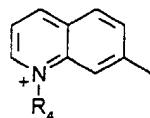
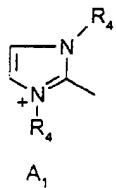
R<sub>1</sub> and R<sub>2</sub>, which are identical or different, are chosen from a hydrogen atom; a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a -CN, -OH or -NH<sub>2</sub> radical or form with each other or a carbon atom of the benzene ring a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with at least one C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a 4'-aminophenyl radical,

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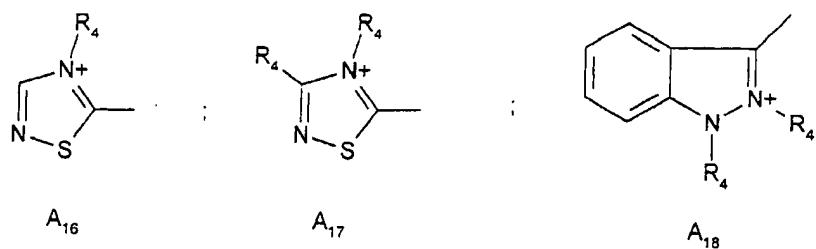
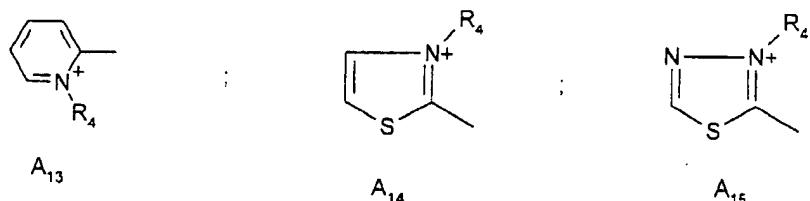
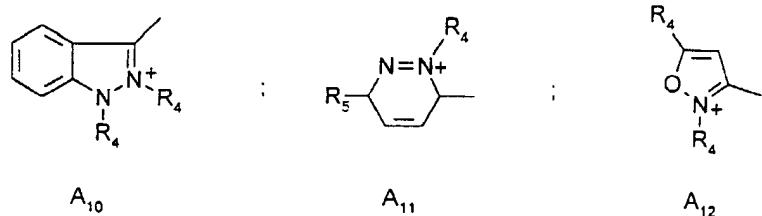
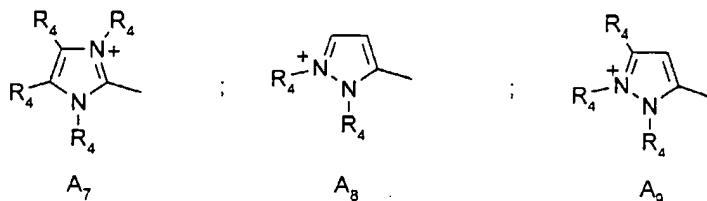
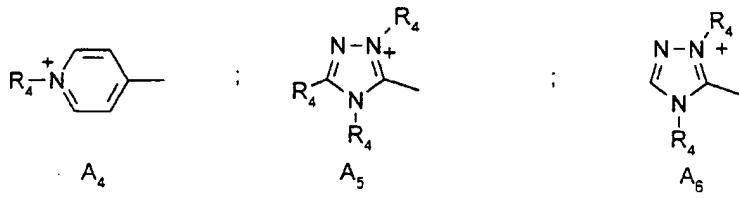
$R_3$  and  $R'_3$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a cyano radical; a  $C_1$ - $C_4$  alkyl radical; a  $C_1$ - $C_4$  alkoxy radical; and an acetyloxy radical,

X<sup>-</sup> is an anion,

A is a group chosen from the following structures  $A_1$  to  $A_{19}$ :

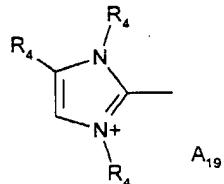


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and

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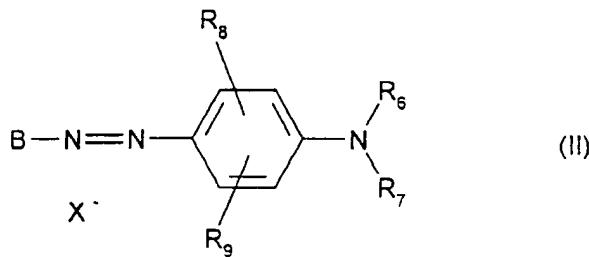


A<sub>19</sub>

in which R<sub>4</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a hydroxyl radical and R<sub>5</sub> is a C<sub>1</sub>-C<sub>4</sub> alkoxy radical,

with the proviso that when D represents -CH, A is A<sub>4</sub> or A<sub>13</sub> and R<sub>3</sub> is different from an alkoxy radical, then R<sub>1</sub> and R<sub>2</sub> are not simultaneously hydrogen atoms;

**b) cationic direct dyes of formula (II):**



in which:

*a9*  
*C6N*

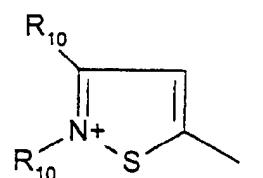
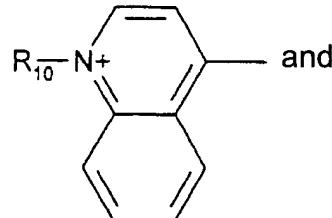
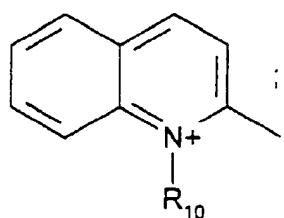
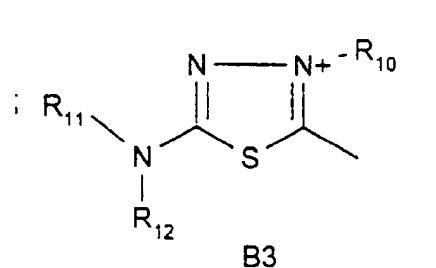
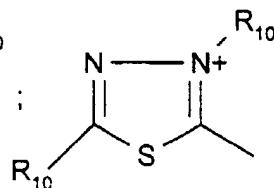
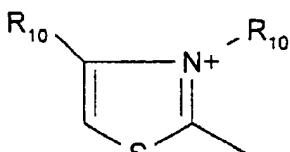
R<sub>6</sub> is a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

R<sub>7</sub> is chosen from a hydrogen atom; an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group; and a 4'-aminophenyl radical, or forms with R<sub>6</sub> a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

R<sub>8</sub> and R<sub>9</sub>, which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from bromine, chlorine, fluorine, and iodine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and a -CN radical,

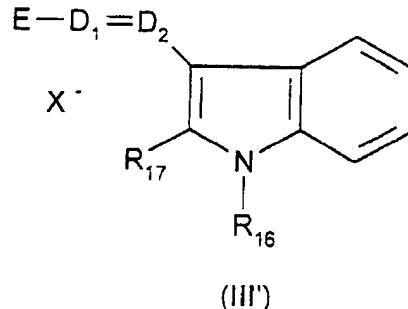
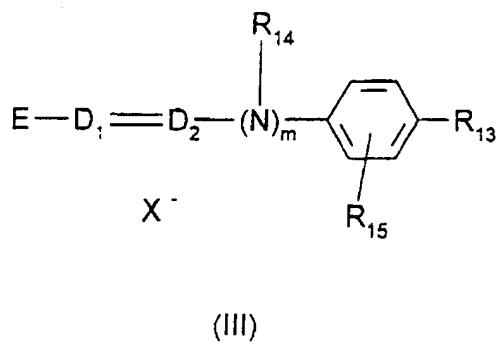
X<sup>-</sup> is an anion,

B represents a group chosen from the following structures B1 to B6:



in which  $R_{10}$  is a  $C_1-C_4$  alkyl radical,  $R_{11}$  and  $R_{12}$ , which are identical or different, are a hydrogen atom or a  $C_1-C_4$  alkyl radical;

**c) cationic direct dyes of the following formula (III) and formula (III'):**



in which:

$R_{13}$  is chosen from a hydrogen atom, a  $C_1-C_4$  alkoxy radical, a halogen atom chosen from bromine, chlorine, fluorine, and iodine; and an amino radical,

$R_{14}$  is a hydrogen atom, a  $C_1-C_4$  alkyl radical or forms with a carbon atom of the benzene ring a heterocycle which is optionally oxygen-containing and is unsubstituted or substituted with at least one  $C_1-C_4$  alkyl group,

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*Con't*  
R<sub>15</sub> is a hydrogen or halogen atom chosen from bromine, chlorine, fluorine, and iodine,

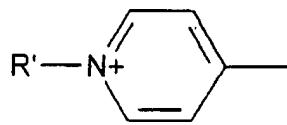
R<sub>16</sub> and R<sub>17</sub>, which are identical or different, are a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

D<sub>1</sub> and D<sub>2</sub>, which are identical or different, are a nitrogen atom or a -CH group,

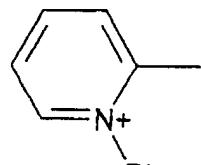
m = 0 or 1,  
with the proviso that when R<sub>13</sub> is an unsubstituted amino group, then D<sub>1</sub> and D<sub>2</sub> simultaneously are -CH groups and m = 0,

X<sup>-</sup> is an anion,

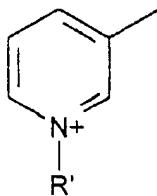
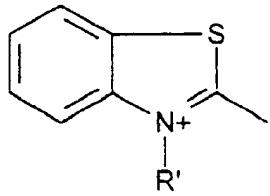
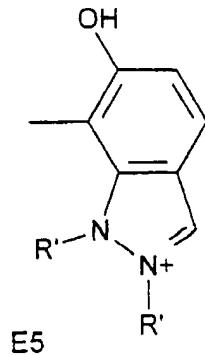
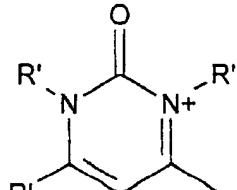
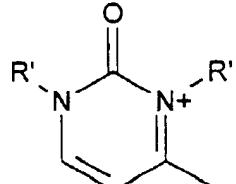
E is a group chosen from the following structures E1 to E8:



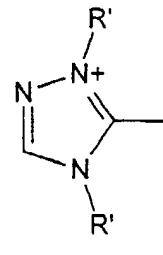
E1



E2



and



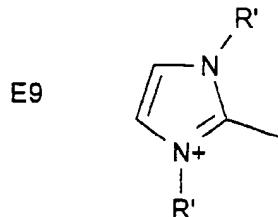
in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

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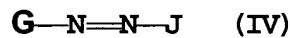
when  $m = 0$  and D, is a nitrogen atom, then E may also be a group having the following structure E9:

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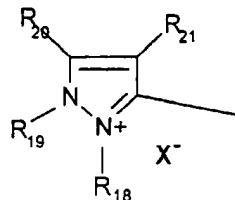
in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical, and

d) cationic direct dyes of formula (IV):

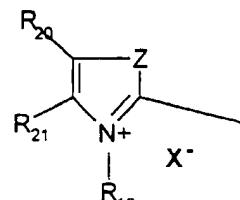


in which:

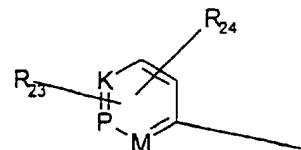
**the symbol G** is a group chosen from the following structures G<sub>1</sub> to G<sub>3</sub>:



G<sub>1</sub>



G<sub>2</sub>



G<sub>3</sub>

in which structures G<sub>1</sub> to G<sub>3</sub>,

R<sub>18</sub> is chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a phenyl radical which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical or with a halogen atom chosen from chlorine, bromine, iodine and fluorine;

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R<sub>19</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a phenyl radical;

R<sub>20</sub> and R<sub>21</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical and a phenyl radical, or form together in G<sub>1</sub> a benzene ring which is substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals, or form together in G<sub>2</sub> a benzene ring which is optionally substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals;

R<sub>20</sub> may also be a hydrogen atom;

Z is an oxygen or sulphur atom or an -NR<sub>19</sub> group;

M is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

K is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

P is a group chosen from -CH; -CR wherein R denotes C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub> where r is zero or 1;

R<sub>22</sub> is chosen from an O<sup>-</sup> atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical and a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

R<sub>23</sub> and R<sub>24</sub>, which are identical or different, are chosen from a hydrogen atom; a

halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

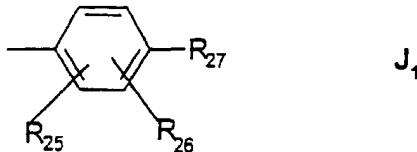
a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an -NO<sub>2</sub> radical;

X<sup>-</sup> is an anion;

**wherein J is chosen from:**

**-(a) a group having the following structure J<sub>1</sub>:**

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in which structure J<sub>1</sub>,

R<sub>25</sub> is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and a radical chosen from -OH, -NO<sub>2</sub>, -NHR<sub>28</sub>, -NR<sub>29</sub>R<sub>30</sub>, and -NHCO(C<sub>1</sub>-C<sub>4</sub>alkyl), or forms with R<sub>26</sub> a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen and sulphur;

R<sub>26</sub> is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a C<sub>1</sub>-C<sub>4</sub> alkoxy radical, or forms with R<sub>27</sub> or R<sub>28</sub> a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen or sulphur;

R<sub>27</sub> is chosen from a hydrogen atom, an -OH radical, an -NHR<sub>28</sub> radical, and an -NR<sub>29</sub>R<sub>30</sub> radical;

R<sub>28</sub> is chosen from a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical, and a phenyl radical;

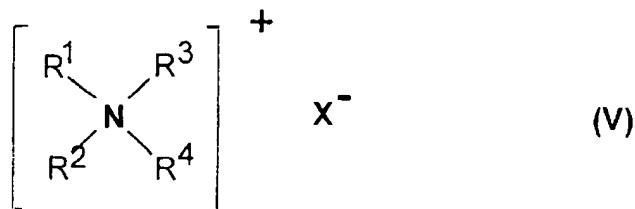
R<sub>29</sub> and R<sub>30</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, and a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical; and

*A9*  
*Cont'd*

-(b) a 5- or 6- membered nitrogen-containing heterocycle group which optionally contains additional heteroatoms, carbonyl-containing groups, or a mixture of additional heteroatoms and carbonyl-containing groups and which is unsubstituted or substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, amino and phenyl radicals, and

(ii) at least one quaternary ammonium salt chosen from:

(ii)<sub>1</sub> - quaternary ammonium salts of the following formula (V):



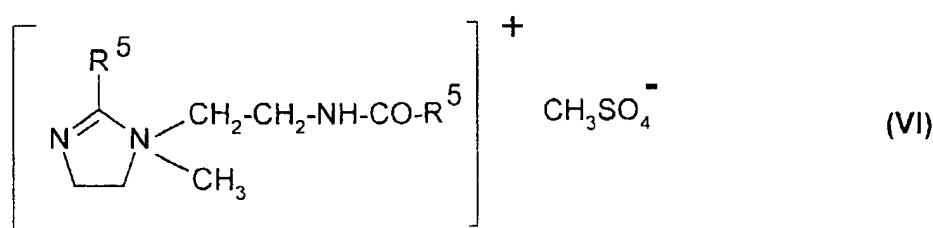
in which

the radicals R<sup>1</sup> R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, which are identical or different, are chosen from a saturated or unsaturated, linear or branched, aliphatic hydrocarbon radical comprising 1 to 30 carbon atoms; and a radical chosen from alkoxy, alkoxy carbonylalkyl, polyoxyalkylene, alkylamido, alkylamidoalkyl, hydroxyalkyl,

aromatic, aryl and alkylaryl radicals comprising 12 to 30 carbon atoms, wherein at least one radical among R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is a radical comprising 8 to 30 carbon atoms;

X<sup>-</sup> is an anion chosen from halides, phosphates, acetates, lactates and alkyl sulphates;

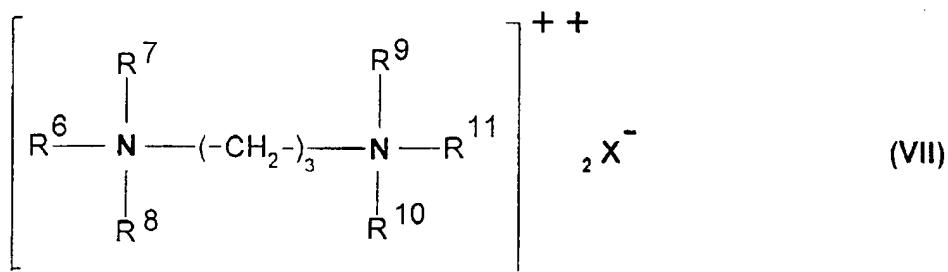
(ii)<sub>2</sub> - imidazolium salts of the following formula (VI):



in which

R<sup>5</sup> is chosen from alkenyl radicals and alkyl radicals, said alkenyl radicals and alkyl radicals comprising 13 to 31 carbon atoms and being derived from tallow fatty acids;

(ii)<sub>3</sub> - quaternary diammonium salts of the following formula (VII):



in which

$R^6$  is an aliphatic radical comprising 16 to 30 carbon atoms,

$R^7$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$  and  $R^{11}$  are chosen from hydrogen or an alkyl radical comprising 1 to 4 carbon atoms, and  $X^-$  is an anion chosen from halides, acetates, phosphates and sulphates.

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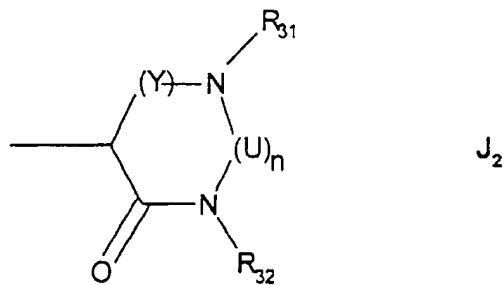
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33. A composition according to Claim 32, wherein in the definition of said at least one cationic direct dye of formulas (I), (II), (III), and (III'), X<sup>-</sup> is chosen from chloride, methylsulphate, and acetate.

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*Con*  
34. A composition according to claim 32, wherein in the definition of said cationic direct dyes of formula (IV), in G<sub>1</sub> and G<sub>2</sub>, X<sup>-</sup> is chosen from chloride, iodide, methylsulphate, ethylsulphate, acetate and perchlorate.

35. A composition according to Claim 32, wherein in the definition of said cationic direct dyes of formula (IV), the 5- or 6- membered nitrogen containing heterocycle group of J is chosen from groups having the structure J<sub>2</sub> below:



in which structure J<sub>2</sub>,

R<sub>31</sub> and R<sub>32</sub>, which are identical or different, are chosen from a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical, and a phenyl radical;

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cont'd*  
Y is a -CO- radical or the radical —CH<sub>3</sub>—C=—; and

n = 0 or 1, wherein when n is 1, U is a -CO- radical.

36. A composition according to Claim 32, wherein said at least one cationic direct dye is present in an amount ranging from 0.001 to 10% by weight of the total weight of the composition.

37. A composition according to Claim 36, wherein said at least one cationic direct dye is present in an amount ranging from 0.005 to 5% by weight of the total weight of the composition.

38. A composition according to Claim 32, wherein the quaternary ammonium salt of formula (V) is a dialkyldimethylammonium or alkyltrimethylammonium salt in which the alkyl radical comprises 12 to 22 carbon atoms.

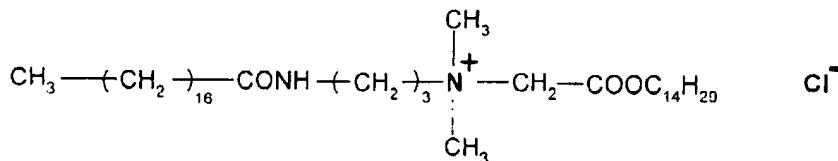
39. A composition according to Claim 38, wherein the quaternary ammonium salt of formula (V) is distearyldimethylammonium chloride, cetyltrimethylammonium chloride, or behenyltrimethylammonium chloride.

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40. A composition according to Claim 32, wherein the quaternary ammonium salt of formula (V) is a di(C<sub>1</sub>-C<sub>2</sub> alkyl)(C<sub>12</sub>-C<sub>22</sub>alkyl)hydroxy(C<sub>1</sub>-C<sub>2</sub>alkyl)ammonium salt.

41. A composition according to Claim 40, wherein the quaternary ammonium salt of formula (V) is oleocetyltrimethylhydroxyethylammonium chloride.

42. A composition according to Claim 32, wherein the quaternary ammonium salt of formula (V) is stearamidopropyldimethyl (myristyl acetate) ammonium chloride of formula:



43. A composition according to Claim 32, wherein said at least one quaternary ammonium salt is present in an amount ranging from 0.01 to 10% by weight of the total weight of the composition.

44. A composition according to Claim 43, wherein said at least one quaternary ammonium salt is present in an amount ranging from 0.05 to 5% by weight of the total weight of the composition.

45. A composition according to Claim 32, wherein said medium suitable for dyeing comprises water or a mixture of water and at least one organic solvent.

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202-408-4000

46. A composition according to Claim 32, wherein the composition has a pH ranging from 2 to 11.

47. A composition according to Claim 46, wherein the pH ranges from 5 to 10.

48. A composition according to Claim 32, further comprising at least one oxidation base chosen from para-phenylenediamines, bis-phenylalkylenediamines, para-aminophenols, ortho-aminophenols and heterocyclic bases.

49. A composition according to Claim 48, wherein said at least one oxidation base is present in an amount ranging from 0.0005 to 12% by weight of the total weight of the composition.

50. A composition according to Claim 49, wherein said at least one oxidation base is present in an amount ranging from 0.005 to 6% by weight of the total weight of the composition.

51. A composition according to Claim 48, further comprising at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols and heterocyclic couplers.

52. A composition according to Claim 51, wherein said at least one coupler is present in an amount ranging from 0.0001 to 10% by weight of the total weight of the composition.

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53. A composition according to Claim 52, wherein said at least one coupler is present in an amount ranging from 0.005 to 5% by weight of the total weight of the composition.

54. A composition according to Claim 32, wherein the composition further comprises at least one oxidizing agent.

55. A composition according to Claim 54, wherein said at least one oxidizing agent is chosen from peroxides, alkali metal bromates, persalts, and enzymes.

56. A composition according to Claim 55, wherein said peroxides are chosen from hydrogen peroxide and urea peroxide.

57. A composition according to Claim 55, wherein said persalts are chosen from perborates and persulphates.

58. A composition according to Claim 55, wherein said enzymes are chosen from peroxidases, laccases, and two-electron oxidoreductases.

59. A composition according to Claim 32, wherein said keratinous fibers are human keratinous fibers.

60. A composition according to Claim 59, wherein said human keratinous fibers are hair.

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

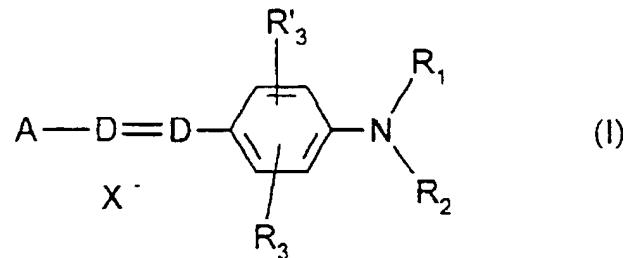
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61. A method for dyeing keratinous fibers, comprising:  
applying to said keratinous fibers for a time sufficient to develop a desired color,  
a composition comprising, in a medium suitable for dyeing,

(i) at least one cationic direct dye chosen from:

a) cationic direct dyes of formula (I):



in which:

D is a nitrogen atom or a -CH group,  
R<sub>1</sub> and R<sub>2</sub>, which are identical or different, are chosen from a hydrogen atom; a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a -CN, -OH or -NH<sub>2</sub> radical or form with each other or a carbon atom of the benzene ring a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with at least one C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a 4'-aminophenyl radical,

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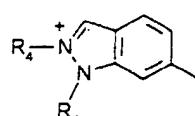
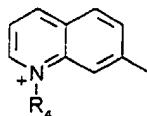
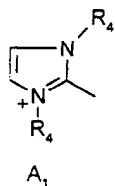
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Attorney Docket Number: 05725.0577-00

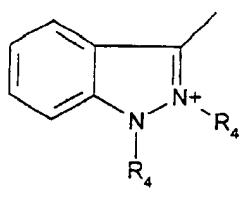
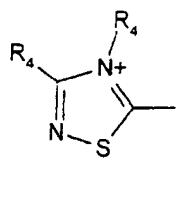
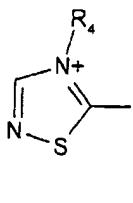
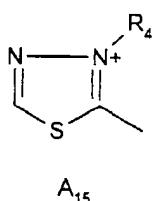
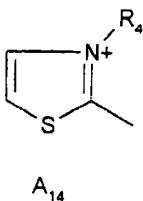
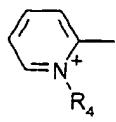
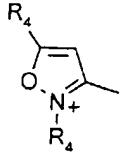
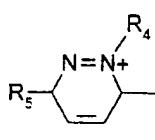
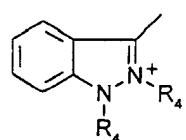
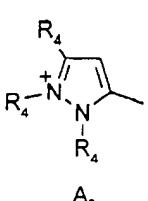
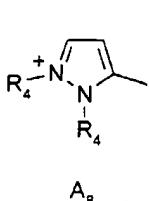
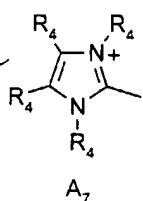
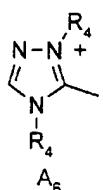
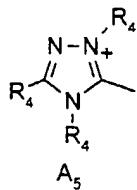
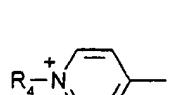
$R_3$  and  $R'_3$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a cyano radical; a  $C_1$ - $C_4$  alkyl radical; a  $C_1$ - $C_4$  alkoxy radical; and an acyloxy radical,

X<sup>-</sup> is an anion,

A is a group chosen from the following structures  $A_1$  to  $A_{19}$ :

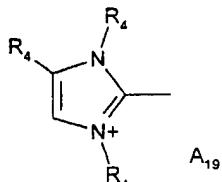


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and

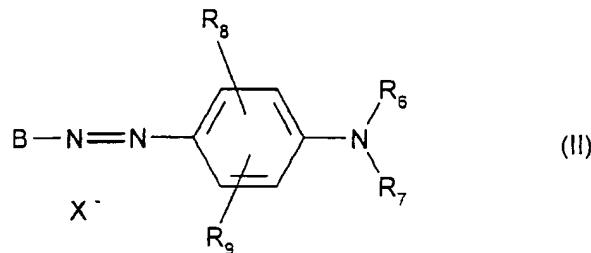


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in which R<sub>4</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a hydroxyl radical and R<sub>5</sub> is a C<sub>1</sub>-C<sub>4</sub> alkoxy radical,

with the proviso that when D represents -CH, A is A<sub>4</sub> or A<sub>13</sub> and R<sub>3</sub> is different from an alkoxy radical, then R<sub>1</sub> and R<sub>2</sub> are not simultaneously hydrogen atoms;

**b) cationic direct dyes of formula (II):**



in which:

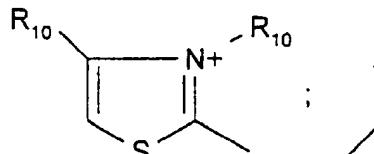
R<sub>6</sub> is a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

R<sub>7</sub> is chosen from a hydrogen atom; an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group; and a 4'-aminophenyl radical, or forms with R<sub>6</sub> a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

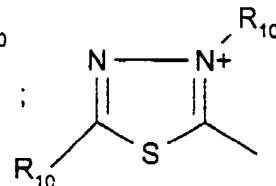
R<sub>8</sub> and R<sub>9</sub>, which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from bromine, chlorine, fluorine, and iodine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and a -CN radical,

X<sup>-</sup> is an anion,

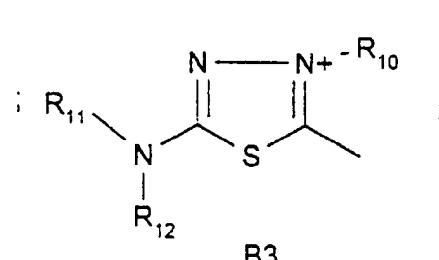
B represents a group chosen from the following structures B1 to B6:



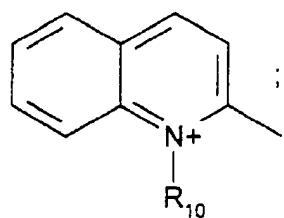
B1



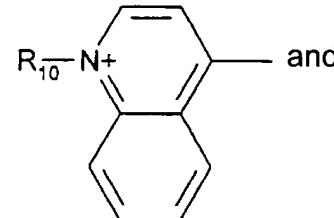
B2



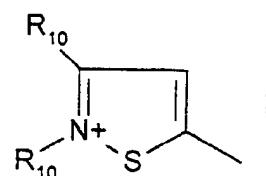
B3



B4



B5

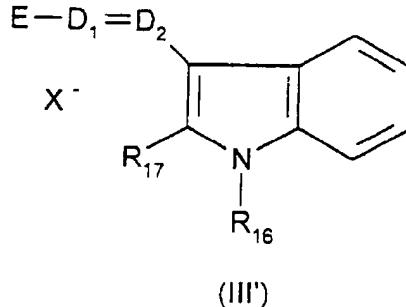
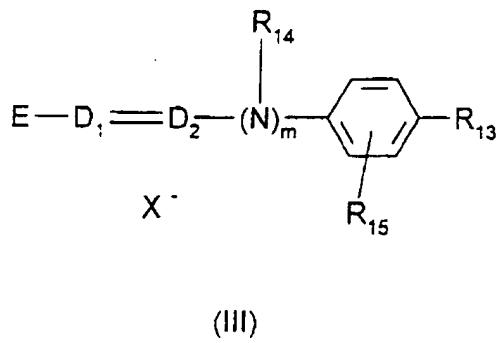


B6

in which R<sub>10</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical, R<sub>11</sub> and R<sub>12</sub>, which are identical or different, are a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

**c) cationic direct dyes of the following formula (III) and formula (III'):**

A9  
Cont



in which:

R<sub>13</sub> is chosen from a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical, a halogen atom chosen from bromine, chlorine, fluorine, and iodine; and an amino radical,

R<sub>14</sub> is a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or forms with a carbon atom of the benzene ring a heterocycle which is optionally oxygen-containing and is unsubstituted or substituted with at least one C<sub>1</sub>-C<sub>4</sub> alkyl group,

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$R_{15}$  is a hydrogen or halogen atom chosen from bromine, chlorine, fluorine, and iodine.

$R_{16}$  and  $R_{17}$ , which are identical or different, are a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

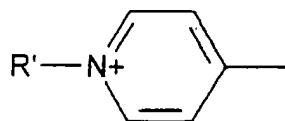
$D_1$  and  $D_2$ , which are identical or different, are a nitrogen atom or a  $-CH_3$  group,

$$m = 0 \text{ or } 1,$$

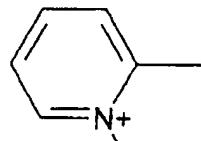
with the proviso that when  $R_{13}$  is an unsubstituted amino group, then  $D_1$  and  $D_2$  simultaneously are -CH groups and  $m = 0$ ,

X<sup>-</sup> is an anion.

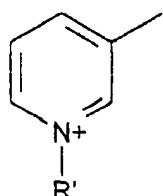
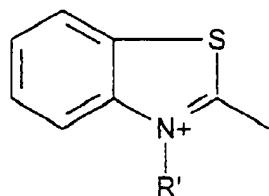
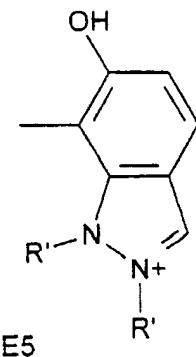
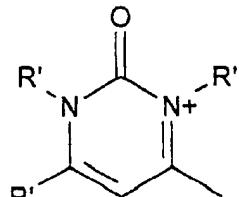
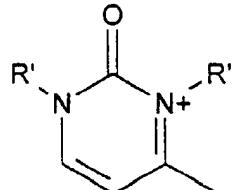
E is a group chosen from the following structures E1 to E8:



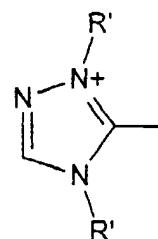
E1



E2

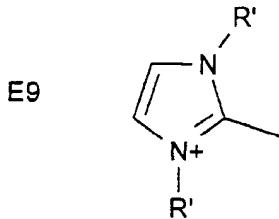


and



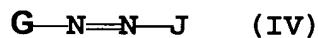
in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

when m = 0 and D, is a nitrogen atom, then E may also be a group having the following structure E9:



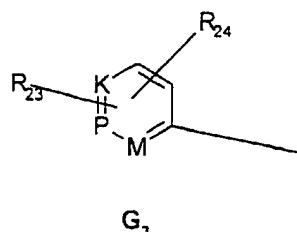
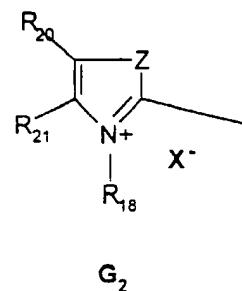
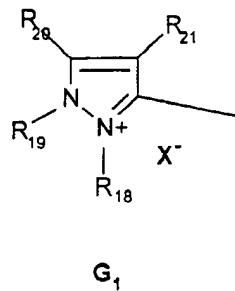
in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical, and

**d) cationic direct dyes of formula (IV):**



in which:

**the symbol G** is a group chosen from the following structures G<sub>1</sub> to G<sub>3</sub>:



in which structures  $\text{G}_1$  to  $\text{G}_3$ ,

$\text{R}_{18}$  is chosen from a  $\text{C}_1\text{-}\text{C}_4$  alkyl radical; a phenyl radical which is unsubstituted or substituted with a  $\text{C}_1\text{-}\text{C}_4$  alkyl radical or with a halogen atom chosen from chlorine, bromine, iodine and fluorine;

R<sub>19</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a phenyl radical;

A9  
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R<sub>20</sub> and R<sub>21</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical and a phenyl radical, or form together in G<sub>1</sub> a benzene ring which is substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals, or form together in G<sub>2</sub> a benzene ring which is optionally substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals;

R<sub>20</sub> may also be a hydrogen atom;

Z is an oxygen or sulphur atom or an -NR<sub>19</sub> group;

M is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

K is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

P is a group chosen from -CH; -CR wherein R denotes C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>, where r is zero or 1;

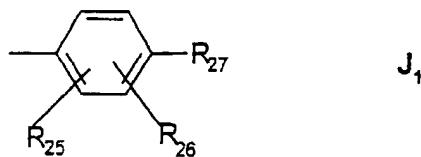
R<sub>22</sub> is chosen from an O<sup>-</sup> atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical and a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

R<sub>23</sub> and R<sub>24</sub>, which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an -NO<sub>2</sub> radical;

X<sup>-</sup> is an anion;

**wherein J is chosen from:**

**-(a) a group having the following structure J<sub>1</sub>:**



A9  
Cont'd

in which structure J<sub>1</sub>,

R<sub>25</sub> is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and a radical chosen from -OH, -NO<sub>2</sub>, -NHR<sub>28</sub>, -NR<sub>29</sub>R<sub>30</sub>, and -NHCO(C<sub>1</sub>-C<sub>4</sub>alkyl), or forms with R<sub>26</sub> a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen and sulphur;

R<sub>26</sub> is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a C<sub>1</sub>-C<sub>4</sub> alkoxy radical, or forms with R<sub>27</sub> or R<sub>28</sub> a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen or sulphur;

R<sub>27</sub> is chosen from a hydrogen atom, an -OH radical, an -NHR<sub>28</sub> radical, and an -NR<sub>29</sub>R<sub>30</sub> radical;

R<sub>28</sub> is chosen from a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical, and a phenyl radical;

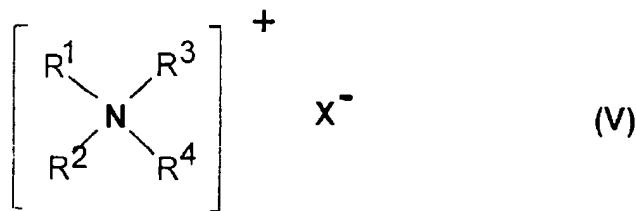
R<sub>29</sub> and R<sub>30</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, and a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical; and

*A9*  
*Cont'd*

**-(b)** a 5- or 6- membered nitrogen-containing heterocycle group which optionally contains additional heteroatoms, carbonyl-containing groups, or a mixture of additional heteroatoms and carbonyl-containing groups and which is unsubstituted or substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, amino and phenyl radicals, and

(ii) at least one quaternary ammonium salt chosen from:

(ii)<sub>1</sub> - quaternary ammonium salts of the following formula (V):



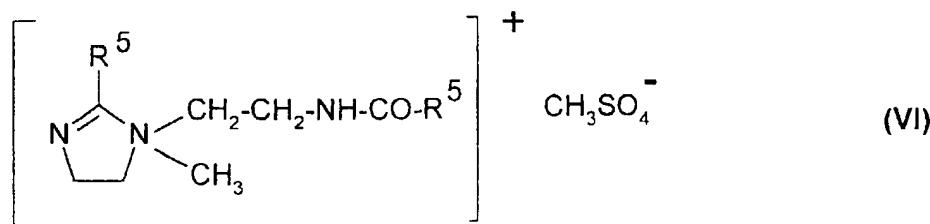
in which

the radicals R<sup>1</sup> R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, which are identical or different, are chosen from a saturated or unsaturated, linear or branched, aliphatic hydrocarbon radical comprising 1 to 30 carbon atoms; and a radical chosen from alkoxy, alkoxy carbonylalkyl, polyoxyalkylene, alkylamido, alkylamidoalkyl, hydroxyalkyl,

aromatic, aryl and alkylaryl radicals comprising 12 to 30 carbon atoms, wherein at least one radical among R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is a radical comprising 8 to 30 carbon atoms;

X<sup>-</sup> is an anion chosen from halides, phosphates, acetates, lactates and alkyl sulphates;

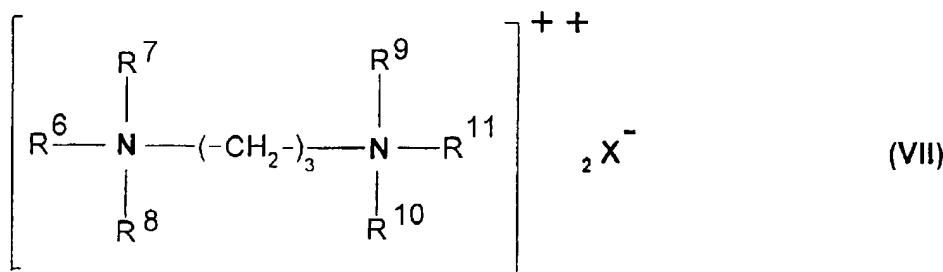
(ii)<sub>2</sub> - imidazolium salts of the following formula (VI):



in which

R<sup>5</sup> is chosen from alkenyl radicals and alkyl radicals, said alkenyl radicals and alkyl radicals comprising 13 to 31 carbon atoms and being derived from tallow fatty acids;

(ii)<sub>3</sub> - quaternary diammonium salts of the following formula (VII):



in which

R<sup>6</sup> is an aliphatic radical comprising 16 to 30 carbon atoms,

R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are chosen from hydrogen or an alkyl radical comprising 1 to 4 carbon atoms, and X<sup>-</sup> is an anion chosen from halides, acetates, phosphates and sulphates.

62. A method according to claim 61, further comprising rinsing said keratinous fibers after applying said composition thereon.

63. A method according to claim 62, further comprising washing said keratinous fibers with shampoo after said rinsing; and rinsing again said keratinous fibers after said washing.

64. A method according to claim 63, further comprising, after said washing and rinsing, drying said keratinous fibers.

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65. A method according to claim 61, wherein said keratinous fibers are human keratinous fibers.
66. A method according to claim 65, wherein said human keratinous fibers are hair.

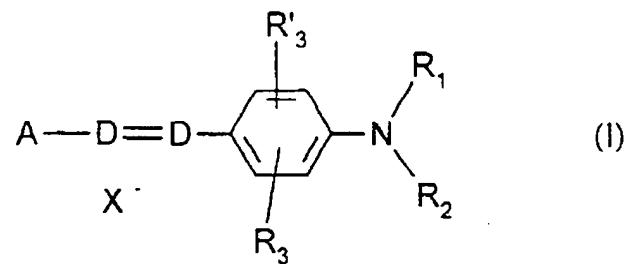
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67. A method for dyeing keratinous fibers, comprising  
separately storing a first composition and a second composition;  
mixing said first composition with said second composition before applying the  
resultant mixture to said keratinous fibers; and  
applying said mixture to the keratinous fibers,  
wherein said first composition comprises, in a medium suitable for dyeing, at  
least one oxidation base and  
at least one cationic direct dye chosen from:

**a) cationic direct dyes of formula (I):**



in which:

D is a nitrogen atom or a -CH group,

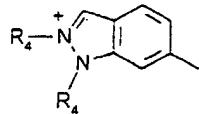
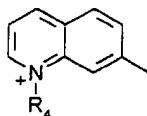
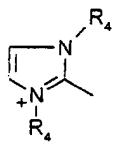
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$R_1$  and  $R_2$ , which are identical or different, are chosen from a hydrogen atom; a  $C_1$ - $C_4$  alkyl radical which is unsubstituted or substituted with a -CN, -OH or -NH<sub>2</sub> radical or form with each other or a carbon atom of the benzene ring a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with at least one  $C_1$ - $C_4$  alkyl radical; and a 4'-aminophenyl radical,

$R_3$  and  $R'_3$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a cyano radical; a  $C_1$ - $C_4$  alkyl radical; a  $C_1$ - $C_4$  alkoxy radical; and an acyloxy radical,

X<sup>-</sup> is an anion,

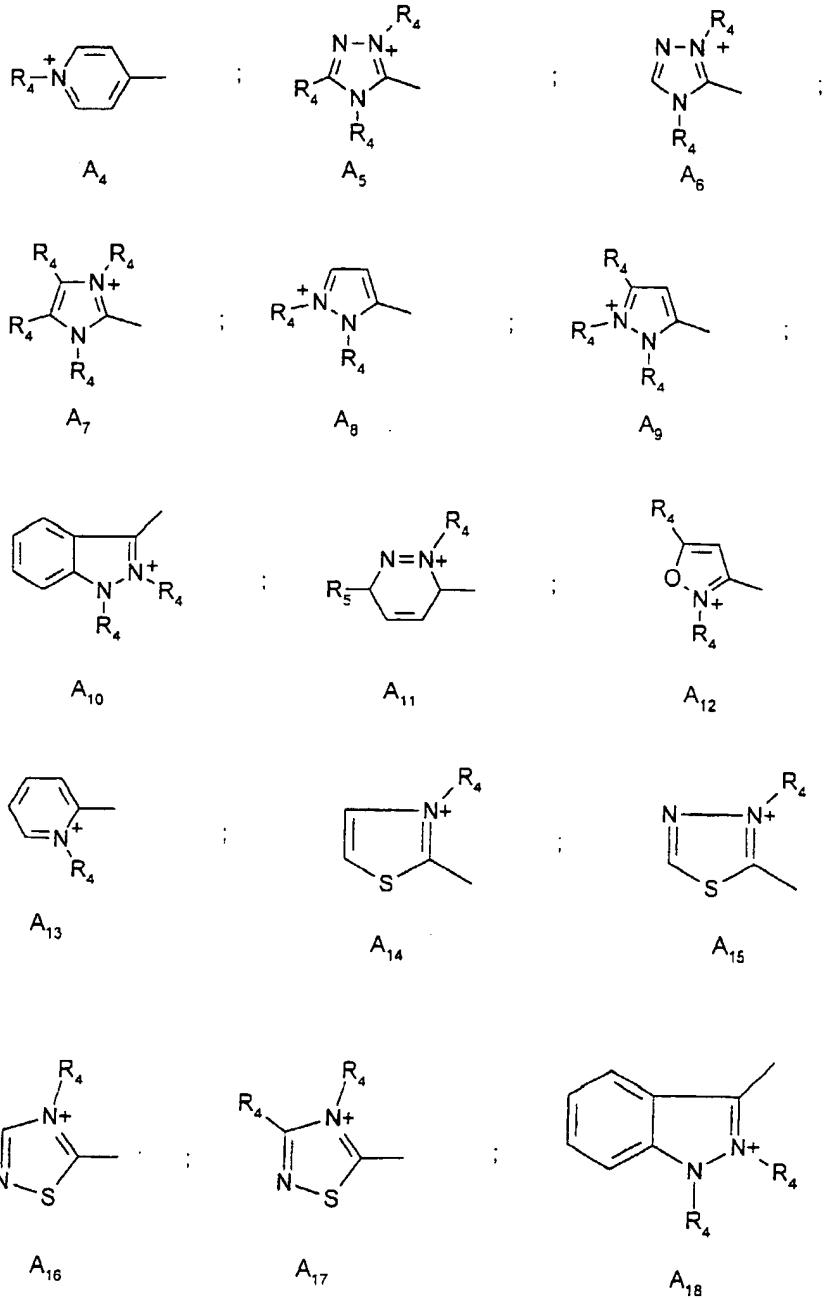
A is a group chosen from the following structures A<sub>1</sub> to A<sub>19</sub>:



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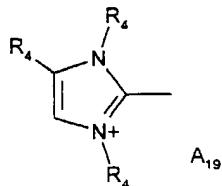
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and

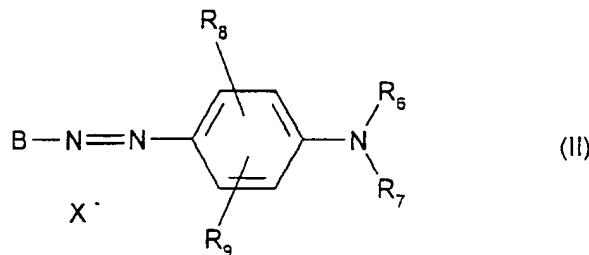


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in which R<sub>4</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a hydroxyl radical and R<sub>5</sub> is a C<sub>1</sub>-C<sub>4</sub> alkoxy radical,

with the proviso that when D represents -CH, A is A<sub>4</sub> or A<sub>13</sub> and R<sub>3</sub> is different from an alkoxy radical, then R<sub>1</sub> and R<sub>2</sub> are not simultaneously hydrogen atoms;

**b) cationic direct dyes of formula (II):**



in which:

$R_6$  is a hydrogen atom or a  $C_1-C_4$  alkyl radical,

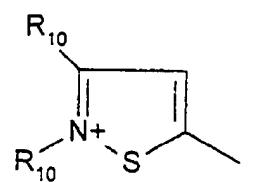
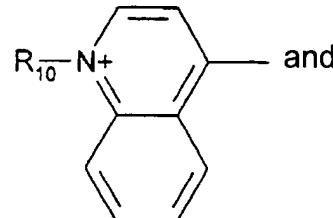
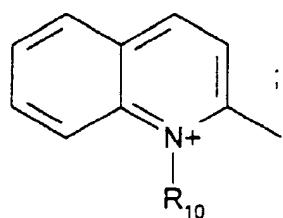
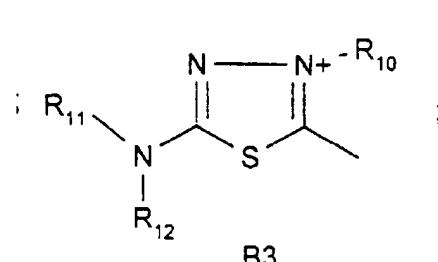
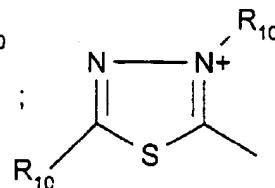
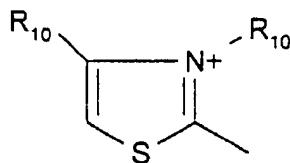
$A9$   
 $\text{Cont}$

$R_7$  is chosen from a hydrogen atom; an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group; and a 4'-aminophenyl radical, or forms with  $R_6$  a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with a  $C_1-C_4$  alkyl radical,

$R_8$  and  $R_9$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from bromine, chlorine, fluorine, and iodine; a  $C_1-C_4$  alkyl radical; a  $C_1-C_4$  alkoxy radical; and a -CN radical,

$X^-$  is an anion,

B represents a group chosen from the following structures B1 to B6:



B4

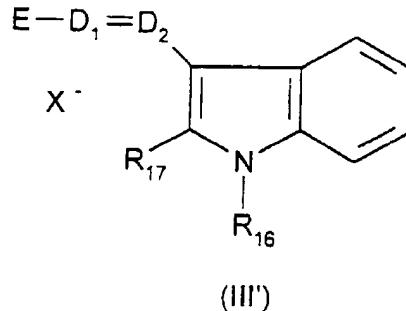
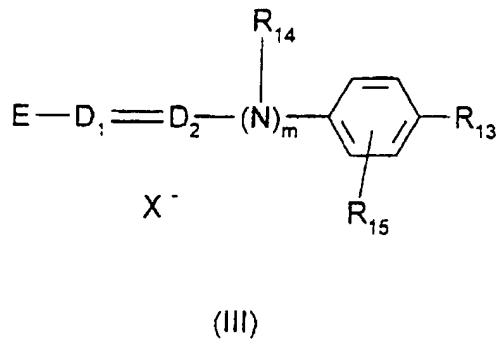
B5

B6

in which  $R_{10}$  is a  $C_1-C_4$  alkyl radical,  $R_{11}$  and  $R_{12}$ , which are identical or different, are a hydrogen atom or a  $C_1-C_4$  alkyl radical;

**c) cationic direct dyes of the following formula (III) and formula (III'):**

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in which:

$R_{13}$  is chosen from a hydrogen atom, a  $C_1-C_4$  alkoxy radical, a halogen atom chosen from bromine, chlorine, fluorine, and iodine; and an amino radical,

$R_{14}$  is a hydrogen atom, a  $C_1-C_4$  alkyl radical or forms with a carbon atom of the benzene ring a heterocycle which is optionally oxygen-containing and is unsubstituted or substituted with at least one  $C_1-C_4$  alkyl group,

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$R_{15}$  is a hydrogen or halogen atom chosen from bromine, chlorine, fluorine, and iodine.

$R_{16}$  and  $R_{17}$ , which are identical or different, are a hydrogen atom or a  $C_1-C_4$  alkyl radical,

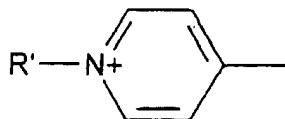
$D_1$  and  $D_2$ , which are identical or different, are a nitrogen atom or a -CH group,

$$m = 0 \text{ or } 1,$$

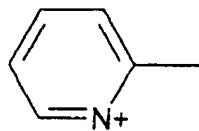
with the proviso that when  $R_{13}$  is an unsubstituted amino group, then  $D_1$  and  $D_2$  simultaneously are -CH groups and  $m = 0$ ,

X<sup>-</sup> is an anion.

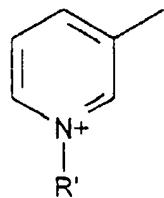
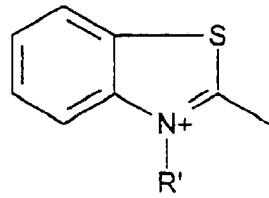
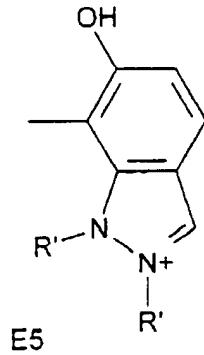
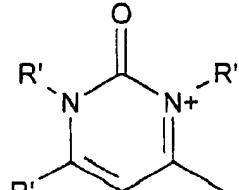
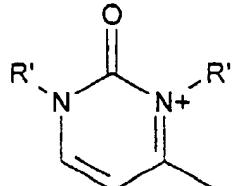
E is a group chosen from the following structures E1 to E8:



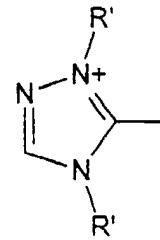
E1



E2



and

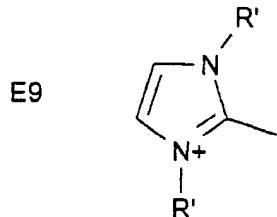


in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

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when  $m = 0$  and  $D_1$  is a nitrogen atom, then  $E$  may also be a group having the following structure E9:



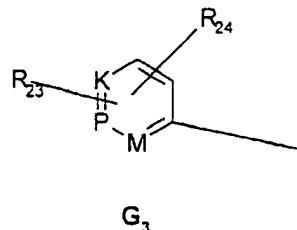
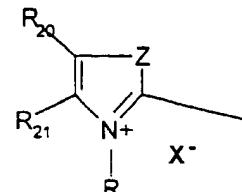
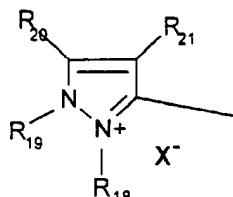
in which  $R'$  is a  $C_1-C_4$  alkyl radical, and

d) cationic direct dyes of formula (IV):



in which:

**the symbol G** is a group chosen from the following structures  $G_1$  to  $G_3$ :



in which structures G<sub>1</sub> to G<sub>3</sub>,

R<sub>18</sub> is chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a phenyl radical which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical or with a halogen atom chosen from chlorine, bromine, iodine and fluorine;

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R<sub>19</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a phenyl radical;

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Cont*  
R<sub>20</sub> and R<sub>21</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical and a phenyl radical, or form together in G<sub>1</sub> a benzene ring which is substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals, or form together in G<sub>2</sub> a benzene ring which is optionally substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals;

R<sub>20</sub> may also be a hydrogen atom;

Z is an oxygen or sulphur atom or an -NR<sub>19</sub> group;

M is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

K is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

P is a group chosen from -CH; -CR wherein R denotes C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub> where r is zero or 1;

R<sub>22</sub> is chosen from an O<sup>-</sup> atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical and a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

R<sub>23</sub> and R<sub>24</sub>, which are identical or different, are chosen from a hydrogen atom; a

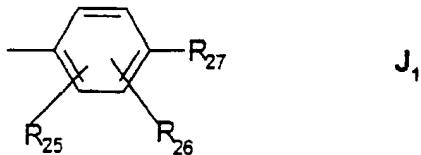
halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an -NO<sub>2</sub> radical;

X<sup>-</sup> is an anion;

**wherein J is chosen from:**

**-(a) a group having the following structure J<sub>1</sub>:**



*a9  
Cont*

in which structure J<sub>1</sub>,

R<sub>25</sub> is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and a radical chosen from -OH, -NO<sub>2</sub>, -NHR<sub>28</sub>, -NR<sub>29</sub>R<sub>30</sub>, and -NHCO(C<sub>1</sub>-C<sub>4</sub>alkyl), or forms with R<sub>26</sub> a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen and sulphur;

R<sub>26</sub> is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a C<sub>1</sub>-C<sub>4</sub> alkoxy radical, or forms with R<sub>27</sub> or R<sub>28</sub> a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen or sulphur;

R<sub>27</sub> is chosen from a hydrogen atom, an -OH radical, an -NHR<sub>28</sub> radical, and an -NR<sub>29</sub>R<sub>30</sub> radical;

R<sub>28</sub> is chosen from a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical, and a phenyl radical;

R<sub>29</sub> and R<sub>30</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, and a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical; and

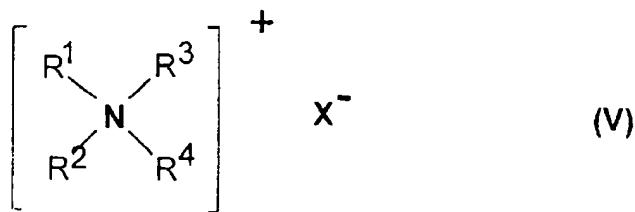
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-(b) a 5- or 6- membered nitrogen-containing heterocycle group which optionally contains additional heteroatoms, carbonyl-containing groups, or a mixture of additional heteroatoms and carbonyl-containing groups and which is unsubstituted or substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, amino and phenyl radicals, and

wherein said second composition comprises, in a medium suitable for dyeing, at least one oxidizing agent; and

wherein either said first composition or said second composition further comprises at least one quaternary ammonium salt chosen from:

(ii)<sub>1</sub> - quaternary ammonium salts of the following formula (V):



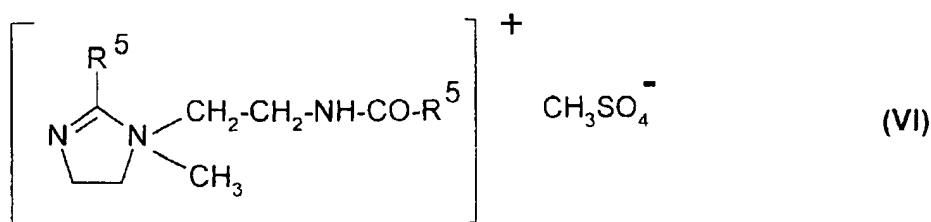
in which

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the radicals R<sup>1</sup> R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, which are identical or different, are chosen from a saturated or unsaturated, linear or branched, aliphatic hydrocarbon radical comprising 1 to 30 carbon atoms; and a radical chosen from alkoxy, alkoxycarbonylalkyl, polyoxyalkylene, alkylamido, alkylamidoalkyl, hydroxyalkyl, aromatic, aryl and alkylaryl radicals comprising 12 to 30 carbon atoms, wherein at least one radical among R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is a radical comprising 8 to 30 carbon atoms;

$X^-$  is an anion chosen from halides, phosphates, acetates, lactates and alkyl sulphates;

(ii)<sub>2</sub> - imidazolium salts of the following formula (VI):

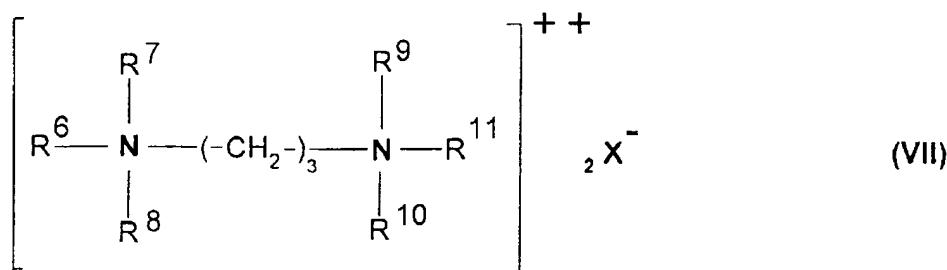


in which

R<sup>5</sup> is chosen from alkenyl radicals and alkyl radicals, said alkenyl radicals and alkyl radicals comprising 13 to 31 carbon atoms and being derived from tallow fatty acids;

*A9*  
*Cont*

(ii)<sub>3</sub> - quaternary diammonium salts of the following formula (VII):



in which

R<sup>6</sup> is an aliphatic radical comprising 16 to 30 carbon atoms, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are chosen from hydrogen or an alkyl radical comprising 1 to 4 carbon atoms, and X<sup>-</sup> is an anion chosen from halides, acetates, phosphates and sulphates.

68. A method according to claim 67, wherein said keratinous fibers are human keratinous fibers.

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69. A method according to claim 68, wherein said human keratinous fibers are

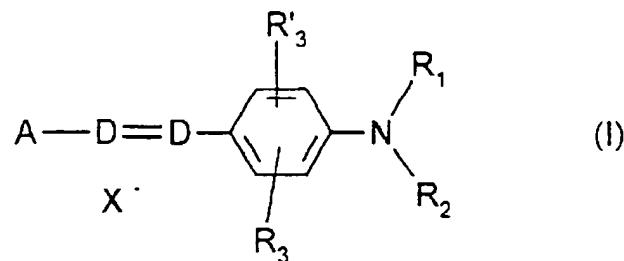
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70. A method for dyeing keratinous fibers, comprising  
separately storing a first composition and a second composition;  
mixing said first composition with said second composition before applying the  
resultant mixture to said keratinous fibers; and  
applying said mixture to the keratinous fibers,  
wherein said first composition comprises, in a medium suitable for dyeing:  
at least one cationic direct dye chosen from:

a) **cationic direct dyes of formula (I):**



in which:

D is a nitrogen atom or a -CH group,

R<sub>1</sub> and R<sub>2</sub>, which are identical or different, are chosen from a hydrogen atom; a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a -CN, -OH or -NH<sub>2</sub>

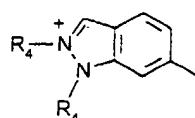
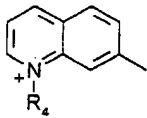
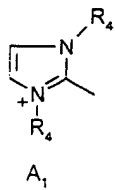
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radical or form with each other or a carbon atom of the benzene ring a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with at least one C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a 4'-aminophenyl radical,

$R_3$  and  $R'_3$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a cyano radical; a  $C_1$ - $C_4$  alkyl radical; a  $C_1$ - $C_4$  alkoxy radical; and an acyloxy radical,

X<sup>-</sup> is an anion.

A is a group chosen from the following structures A<sub>1</sub> to A<sub>19</sub>:

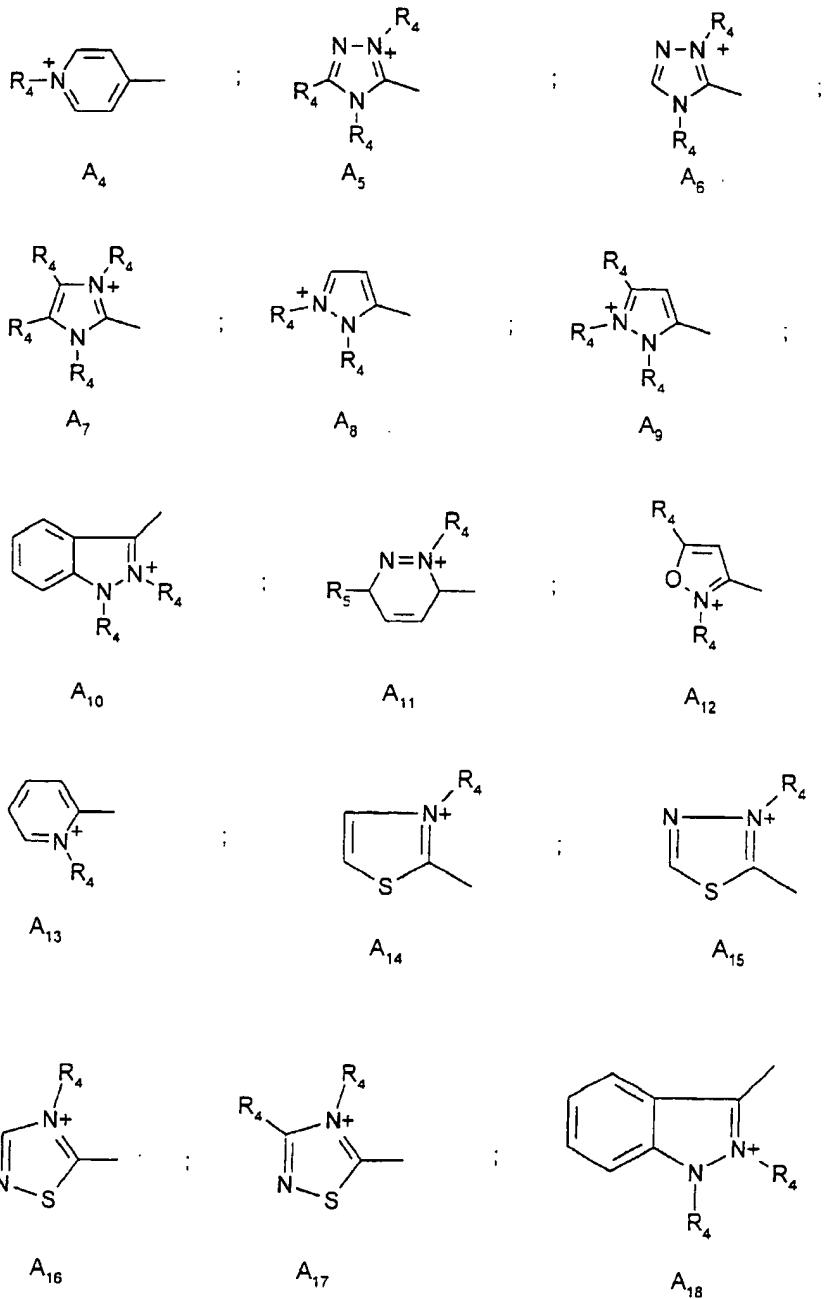


A<sub>2</sub>

A<sub>3</sub>

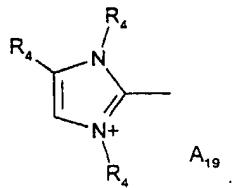
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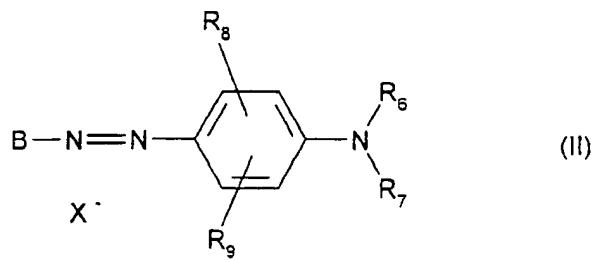
and



in which R<sub>4</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a hydroxyl radical and R<sub>5</sub> is a C<sub>1</sub>-C<sub>4</sub> alkoxy radical,

with the proviso that when D represents -CH, A is A<sub>4</sub> or A<sub>13</sub> and R<sub>3</sub> is different from an alkoxy radical, then R<sub>1</sub> and R<sub>2</sub> are not simultaneously hydrogen atoms;

**b) cationic direct dyes of formula (II):**



in which:

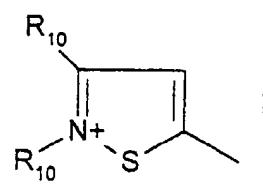
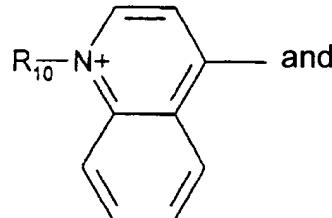
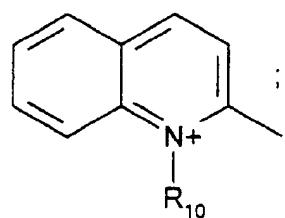
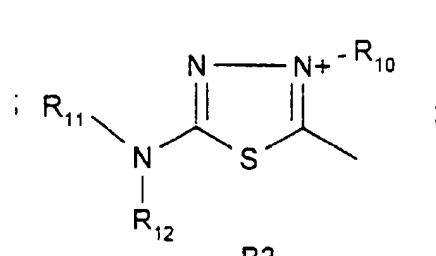
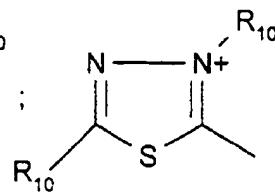
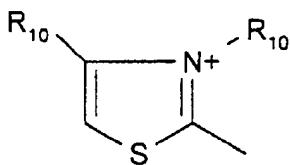
$R_6$  is a hydrogen atom or a  $C_1-C_4$  alkyl radical,

$R_7$  is chosen from a hydrogen atom; an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group; and a 4'-aminophenyl radical, or forms with  $R_6$  a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with a  $C_1-C_4$  alkyl radical,

$R_8$  and  $R_9$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from bromine, chlorine, fluorine, and iodine; a  $C_1-C_4$  alkyl radical; a  $C_1-C_4$  alkoxy radical; and a -CN radical,

$X^-$  is an anion,

B represents a group chosen from the following structures B1 to B6:



B4

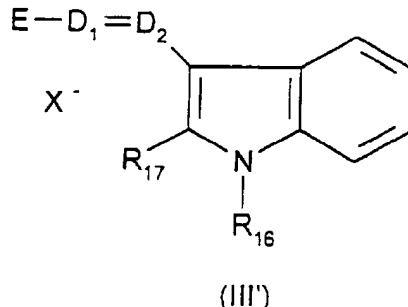
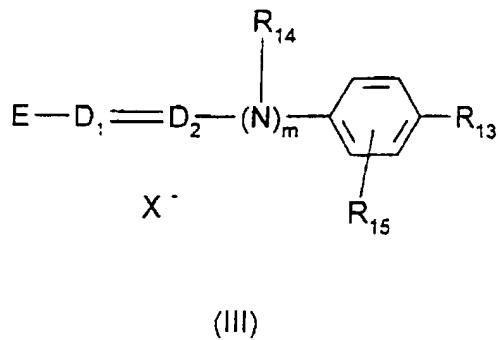
B5

B6

in which  $R_{10}$  is a  $C_1-C_4$  alkyl radical,  $R_{11}$  and  $R_{12}$ , which are identical or different, are a hydrogen atom or a  $C_1-C_4$  alkyl radical;

*Ag  
Con 4*

**c) cationic direct dyes of the following formula (III) and formula (III'):**



in which:

$R_{13}$  is chosen from a hydrogen atom, a  $C_1-C_4$  alkoxy radical, a halogen atom chosen from bromine, chlorine, fluorine, and iodine; and an amino radical,

$R_{14}$  is a hydrogen atom, a  $C_1-C_4$  alkyl radical or forms with a carbon atom of the benzene ring a heterocycle which is optionally oxygen-containing and is unsubstituted or substituted with at least one  $C_1-C_4$  alkyl group,

R<sub>15</sub> is a hydrogen or halogen atom chosen from bromine, chlorine, fluorine, and iodine,

R<sub>16</sub> and R<sub>17</sub>, which are identical or different, are a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

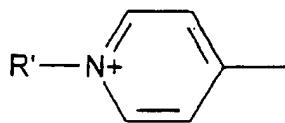
D<sub>1</sub> and D<sub>2</sub>, which are identical or different, are a nitrogen atom or a -CH group,

m = 0 or 1,

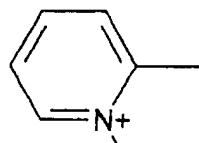
with the proviso that when R<sub>13</sub> is an unsubstituted amino group, then D<sub>1</sub> and D<sub>2</sub> simultaneously are -CH groups and m = 0,

X<sup>-</sup> is an anion,

E is a group chosen from the following structures E1 to E8:

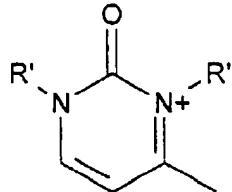


E1

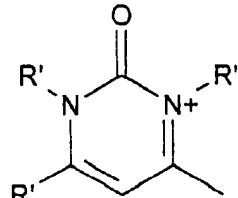


E2

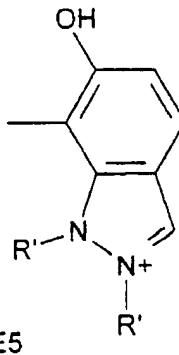
A9  
Cont



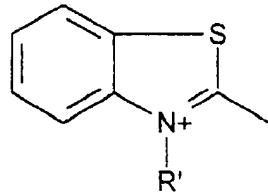
E3



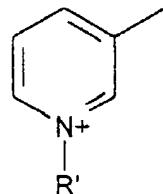
E4



E5

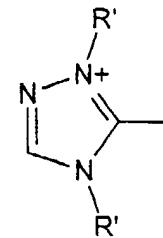


E6



E7

and



E8

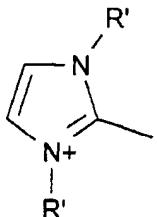
in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

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when  $m = 0$  and  $D_1$  is a nitrogen atom, then  $E$  may also be a group having the following structure E9:

A9  
Cont  
E9



in which  $R'$  is a  $C_1-C_4$  alkyl radical, and

**d) cationic direct dyes of formula (IV):**



in which:

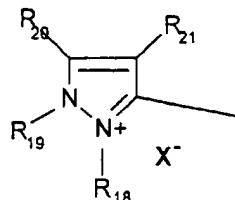
**the symbol G** is a group chosen from the following structures  $G_1$  to  $G_3$ :

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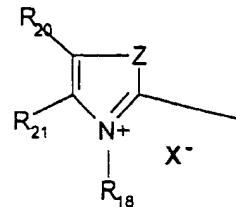
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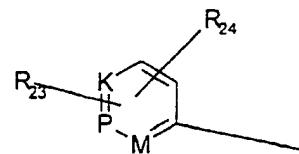
A9  
Cont'd



G<sub>1</sub>



G<sub>2</sub>



G<sub>3</sub>

in which structures G<sub>1</sub> to G<sub>3</sub>,

R<sub>18</sub> is chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a phenyl radical which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical or with a halogen atom chosen from chlorine, bromine, iodine and fluorine;

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R<sub>19</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a phenyl radical;

*A9*  
*Cont*

R<sub>20</sub> and R<sub>21</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical and a phenyl radical, or form together in G<sub>1</sub> a benzene ring which is substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals, or form together in G<sub>2</sub> a benzene ring which is optionally substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals;

R<sub>20</sub> may also be a hydrogen atom;

Z is an oxygen or sulphur atom or an -NR<sub>19</sub> group;

M is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

K is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

P is a group chosen from -CH; -CR wherein R denotes C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub> where r is zero or 1;

R<sub>22</sub> is chosen from an O<sup>-</sup> atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical and a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

R<sub>23</sub> and R<sub>24</sub>, which are identical or different, are chosen from a hydrogen atom; a

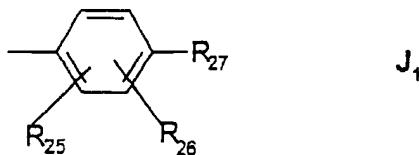
halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an -NO<sub>2</sub> radical;

X<sup>-</sup> is an anion;

**wherein J is chosen from:**

**-(a) a group having the following structure J<sub>1</sub>:**



A9  
con4

in which structure  $J_1$ ,

$R_{25}$  is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a  $C_1$ - $C_4$  alkyl radical; a  $C_1$ - $C_4$  alkoxy radical; and a radical chosen from -OH, -NO<sub>2</sub>, -NHR<sub>28</sub>, -NR<sub>29</sub>R<sub>30</sub>, and -NHCO(C<sub>1</sub>-C<sub>4</sub>alkyl), or forms with  $R_{26}$  a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen and sulphur;

$R_{26}$  is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a  $C_1$ - $C_4$  alkyl radical; and a  $C_1$ - $C_4$  alkoxy radical, or forms with  $R_{27}$  or  $R_{28}$  a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen or sulphur;

$R_{27}$  is chosen from a hydrogen atom, an -OH radical, an -NHR<sub>28</sub> radical, and an -NR<sub>29</sub>R<sub>30</sub> radical;

$R_{28}$  is chosen from a hydrogen atom, a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  monohydroxyalkyl radical, a  $C_2$ - $C_4$  polyhydroxyalkyl radical, and a phenyl radical;

R<sub>29</sub> and R<sub>30</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, and a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical; and

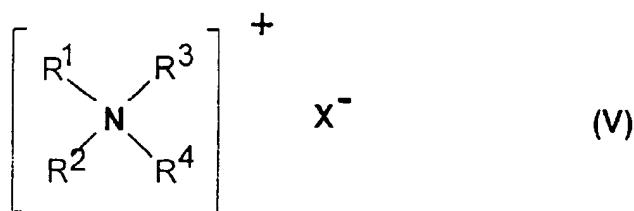
*A9  
Cont*

-(b) a 5- or 6- membered nitrogen-containing heterocycle group which optionally contains additional heteroatoms, carbonyl-containing groups, or a mixture of additional heteroatoms and carbonyl-containing groups and which is unsubstituted or substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, amino and phenyl radicals, and

wherein said second composition comprises, in a medium suitable for dyeing, at least one oxidizing agent; and

wherein either said first composition or said second composition further comprises at least one quaternary ammonium salt chosen from:

(ii)<sub>1</sub> - quaternary ammonium salts of the following formula (V):

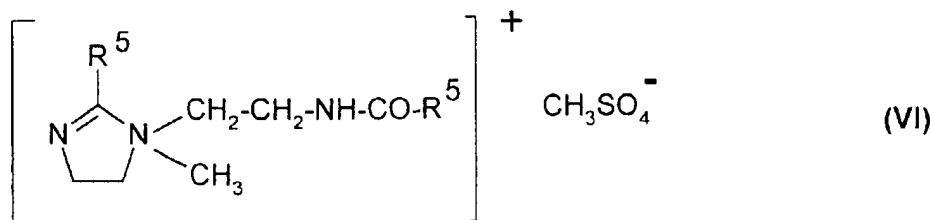


in which

the radicals R<sup>1</sup> R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, which are identical or different, are chosen from a saturated or unsaturated, linear or branched, aliphatic hydrocarbon radical comprising 1 to 30 carbon atoms; and a radical chosen from alkoxy, alkoxycarbonylalkyl, polyoxyalkylene, alkylamido, alkylamidoalkyl, hydroxyalkyl, aromatic, aryl and alkylaryl radicals comprising 12 to 30 carbon atoms, wherein at least one radical among R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is a radical comprising 8 to 30 carbon atoms;

X<sup>-</sup> is an anion chosen from halides, phosphates, acetates, lactates and alkyl sulphates;

(ii)<sub>2</sub> - imidazolium salts of the following formula (VI):

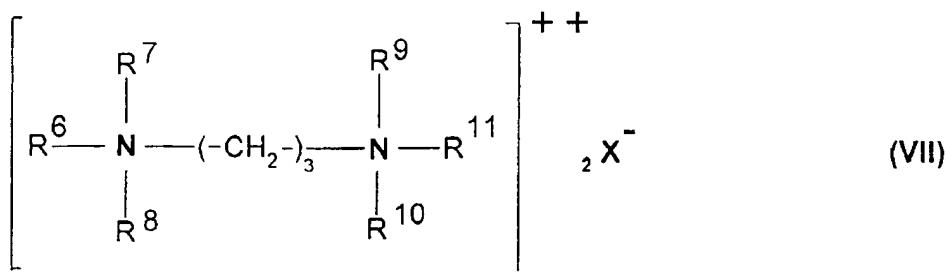


in which

*A9*  
*Cont*

R<sup>5</sup> is chosen from alkenyl radicals and alkyl radicals, said alkenyl radicals and alkyl radicals comprising 13 to 31 carbon atoms and being derived from tallow fatty acids;

(ii)<sub>3</sub> - quaternary diammonium salts of the following formula (VII):



in which

R<sup>6</sup> is an aliphatic radical comprising 16 to 30 carbon atoms,  
R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are chosen from hydrogen or an alkyl radical comprising 1 to 4 carbon atoms, and X<sup>-</sup> is an anion chosen from halides, acetates, phosphates and sulphates.

71. A method according to claim 70, wherein said keratinous fibers are human keratinous fibers.

Serial No.: Unassigned  
Attorney Docket No.: 05725.0577-00

72. A method according to claim 71, wherein said human keratinous fibers are hair.

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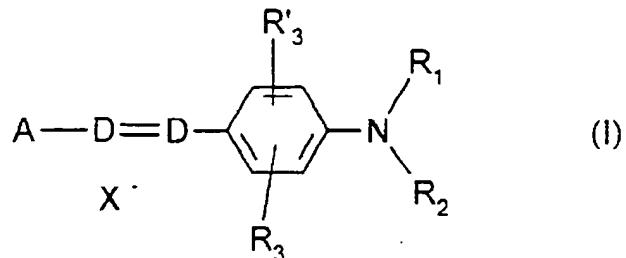
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73. A multicompartiment dyeing kit wherein a first compartment contains a first composition and a second compartment contains a second composition,

wherein said first composition comprises, in a medium suitable for dyeing, at least one oxidation base and

at least one cationic direct dye chosen from:

**a) cationic direct dyes of formula (I):**



in which:

D is a nitrogen atom or a -CH group,

R<sub>1</sub> and R<sub>2</sub>, which are identical or different, are chosen from a hydrogen atom; a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a -CN, -OH or -NH<sub>2</sub> radical or form with each other or a carbon atom of the benzene ring a heterocycle

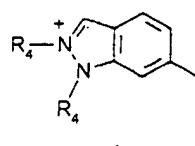
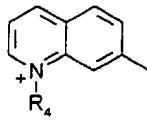
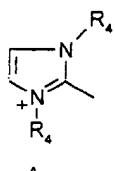
optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with at least one C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a 4'-aminophenyl radical,

*a9*  
*Conf*

R<sub>3</sub> and R'<sub>3</sub>, which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a cyano radical; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an acetoxy radical,

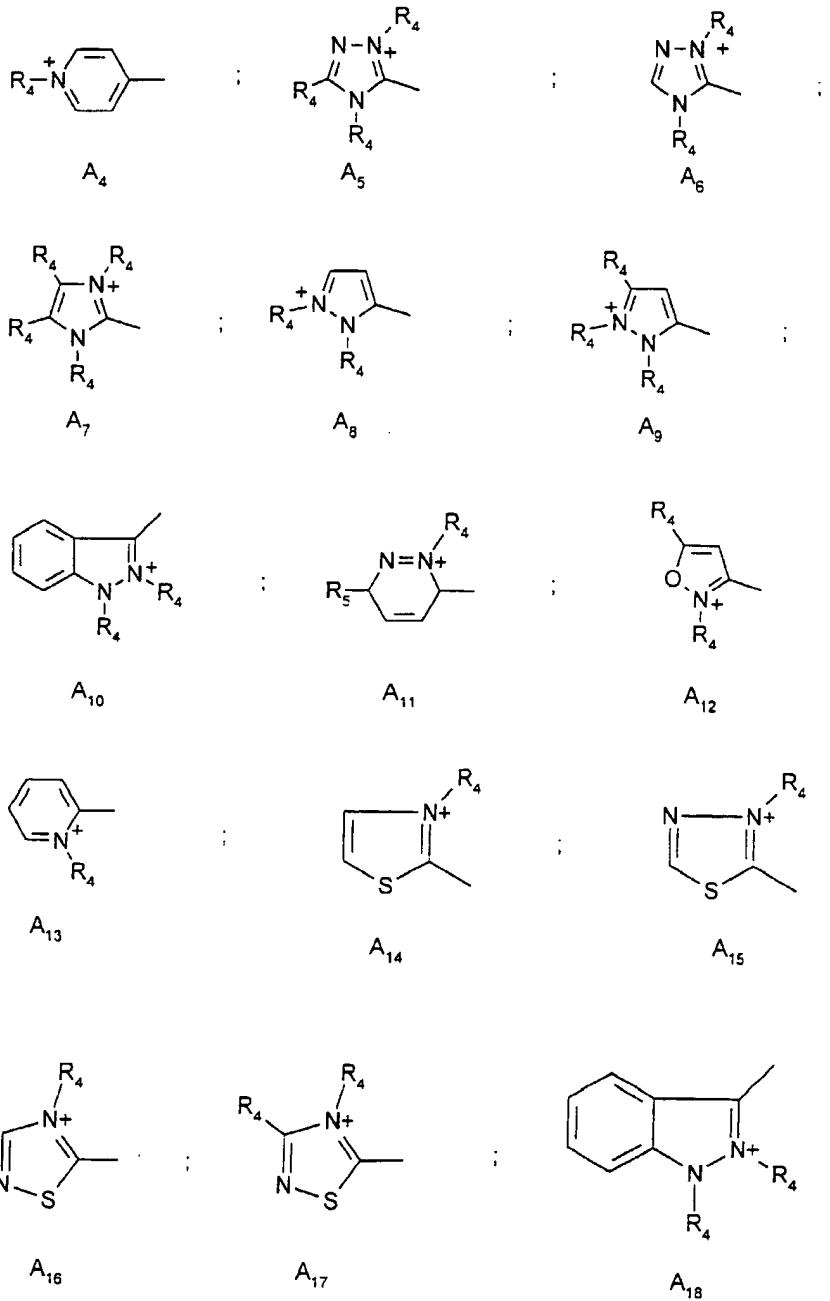
X<sup>-</sup> is an anion,

A is a group chosen from the following structures A<sub>1</sub> to A<sub>19</sub>:



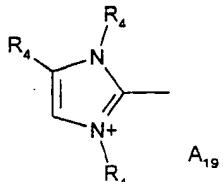
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A9  
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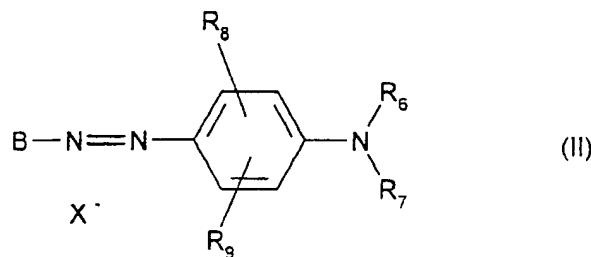
and



in which  $R_4$  is a  $C_1-C_4$  alkyl radical which is unsubstituted or substituted with a hydroxyl radical and  $R_5$  is a  $C_1-C_4$  alkoxy radical,

with the proviso that when D represents -CH, A is  $A_4$  or  $A_{13}$  and  $R_3$  is different from an alkoxy radical, then  $R_1$  and  $R_2$  are not simultaneously hydrogen atoms;

**b) cationic direct dyes of formula (II):**



in which:

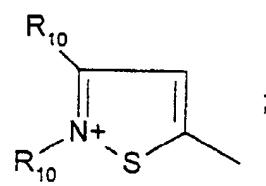
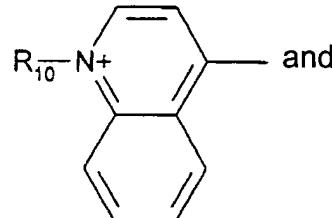
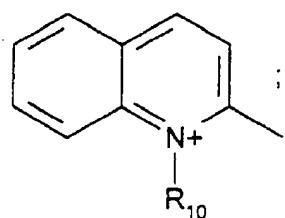
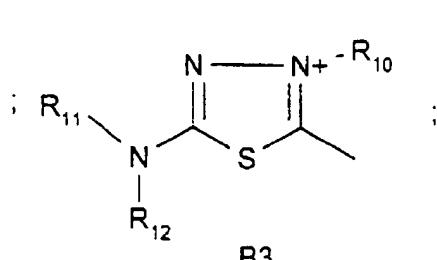
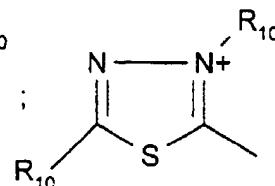
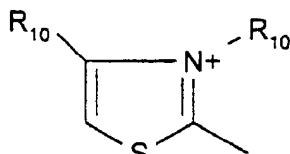
$R_6$  is a hydrogen atom or a  $C_1$ - $C_4$  alkyl radical,

$R_7$  is chosen from a hydrogen atom; an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group; and a 4'-aminophenyl radical, or forms with  $R_6$  a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with a  $C_1$ - $C_4$  alkyl radical,

$R_8$  and  $R_9$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from bromine, chlorine, fluorine, and iodine; a  $C_1$ - $C_4$  alkyl radical; a  $C_1$ - $C_4$  alkoxy radical; and a -CN radical,

$X^-$  is an anion,

B represents a group chosen from the following structures B1 to B6:



B4

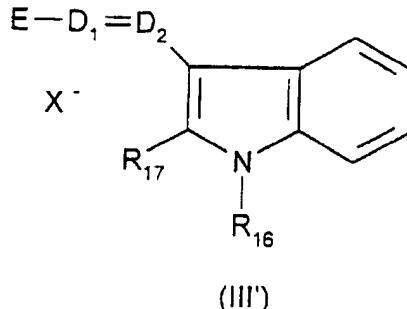
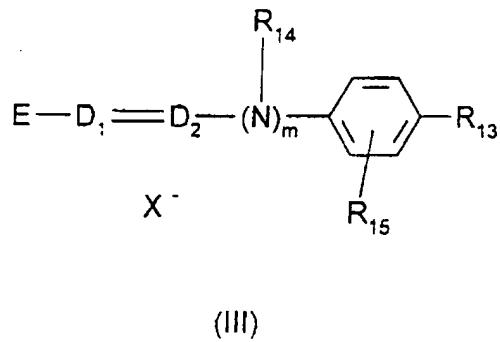
B5

B6

in which  $R_{10}$  is a  $C_1-C_4$  alkyl radical,  $R_{11}$  and  $R_{12}$ , which are identical or different, are a hydrogen atom or a  $C_1-C_4$  alkyl radical;

**c) cationic direct dyes of the following formula (III) and formula (III'):**

*A9  
Cont*



in which:

$R_{13}$  is chosen from a hydrogen atom, a  $C_1-C_4$  alkoxy radical, a halogen atom chosen from bromine, chlorine, fluorine, and iodine; and an amino radical,

$R_{14}$  is a hydrogen atom, a  $C_1-C_4$  alkyl radical or forms with a carbon atom of the benzene ring a heterocycle which is optionally oxygen-containing and is unsubstituted or substituted with at least one  $C_1-C_4$  alkyl group,

*A9*  
*Cont*

$R_{15}$  is a hydrogen or halogen atom chosen from bromine, chlorine, fluorine, and iodine,

$R_{16}$  and  $R_{17}$ , which are identical or different, are a hydrogen atom or a  $C_1-C_4$  alkyl radical,

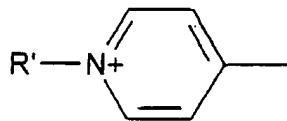
$D_1$  and  $D_2$ , which are identical or different, are a nitrogen atom or a -CH group,

$m = 0$  or  $1$ ,

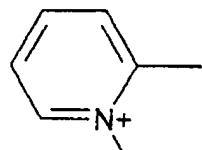
with the proviso that when  $R_{13}$  is an unsubstituted amino group, then  $D_1$  and  $D_2$  simultaneously are -CH groups and  $m = 0$ ,

$X^-$  is an anion,

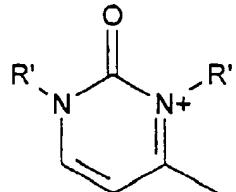
E is a group chosen from the following structures E1 to E8:



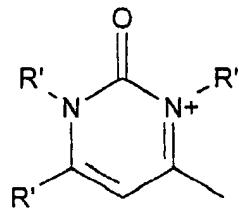
E1



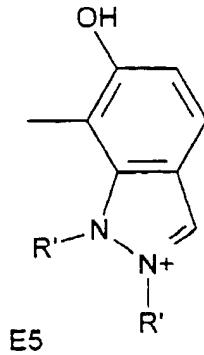
E2



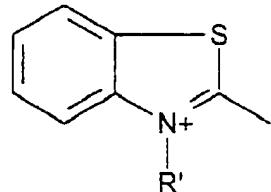
E3



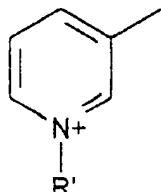
E4



E5

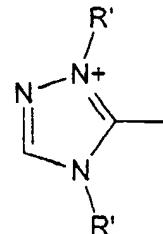


E6



E7

and



E8

in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

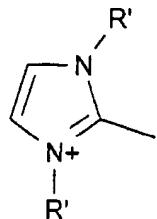
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when  $m = 0$  and  $D_1$  is a nitrogen atom, then  $E$  may also be a group having the following structure E9:

A9  
Cont'd

E9



in which  $R'$  is a  $C_1-C_4$  alkyl radical, and

**d) cationic direct dyes of formula (IV):**

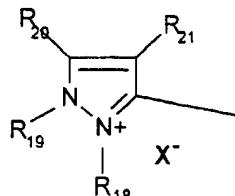


in which:

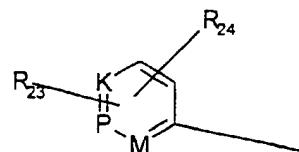
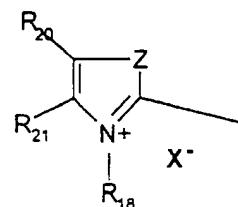
**the symbol G** is a group chosen from the following structures  $G_1$  to  $G_3$ :

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G<sub>1</sub>



in which structures G<sub>1</sub> to G<sub>3</sub>,

R<sub>18</sub> is chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a phenyl radical which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical or with a halogen atom chosen from chlorine, bromine, iodine and fluorine;

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R<sub>19</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a phenyl radical;

R<sub>20</sub> and R<sub>21</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical and a phenyl radical, or form together in G<sub>1</sub> a benzene ring which is substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals, or form together in G<sub>2</sub> a benzene ring which is optionally substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals;

R<sub>20</sub> may also be a hydrogen atom;

Z is an oxygen or sulphur atom or an -NR<sub>19</sub> group;

M is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

K is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

P is a group chosen from -CH; -CR wherein R denotes C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub> where r is zero or 1;

R<sub>22</sub> is chosen from an O<sup>-</sup> atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical and a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

R<sub>23</sub> and R<sub>24</sub>, which are identical or different, are chosen from a hydrogen atom; a

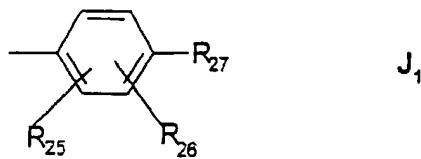
halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an -NO<sub>2</sub> radical;

X<sup>-</sup> is an anion;

**wherein J is chosen from:**

**-(a) a group having the following structure J<sub>1</sub>:**



A9  
Cont

in which structure  $\text{J}_1$ ,

$\text{R}_{25}$  is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a  $\text{C}_1\text{-}\text{C}_4$  alkyl radical; a  $\text{C}_1\text{-}\text{C}_4$  alkoxy radical; and a radical chosen from  $-\text{OH}$ ,  $-\text{NO}_2$ ,  $-\text{NHR}_{28}$ ,  $-\text{NR}_{29}\text{R}_{30}$ , and  $-\text{NHCO}(\text{C}_1\text{-}\text{C}_4\text{alkyl})$ , or forms with  $\text{R}_{26}$  a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen and sulphur;

$\text{R}_{26}$  is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a  $\text{C}_1\text{-}\text{C}_4$  alkyl radical; and a  $\text{C}_1\text{-}\text{C}_4$  alkoxy radical, or forms with  $\text{R}_{27}$  or  $\text{R}_{28}$  a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen or sulphur;

$\text{R}_{27}$  is chosen from a hydrogen atom, an  $-\text{OH}$  radical, an  $-\text{NHR}_{28}$  radical, and an  $-\text{NR}_{29}\text{R}_{30}$  radical;

$\text{R}_{28}$  is chosen from a hydrogen atom, a  $\text{C}_1\text{-}\text{C}_4$  alkyl radical, a  $\text{C}_1\text{-}\text{C}_4$  monohydroxyalkyl radical, a  $\text{C}_2\text{-}\text{C}_4$  polyhydroxyalkyl radical, and a phenyl radical;

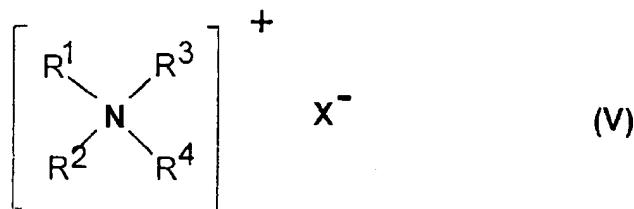
R<sub>29</sub> and R<sub>30</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, and a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical; and

*AG Con H*  
**-(b)** a 5- or 6- membered nitrogen-containing heterocycle group which optionally contains additional heteroatoms, carbonyl-containing groups, or a mixture of additional heteroatoms and carbonyl-containing groups and which is unsubstituted or substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, amino and phenyl radicals, and

wherein said second composition comprises, in a medium suitable for dyeing, at least one oxidizing agent; and

wherein either said first composition or said second composition further comprises at least one quaternary ammonium salt chosen from:

**(ii)<sub>1</sub>** - quaternary ammonium salts of the following formula (V):

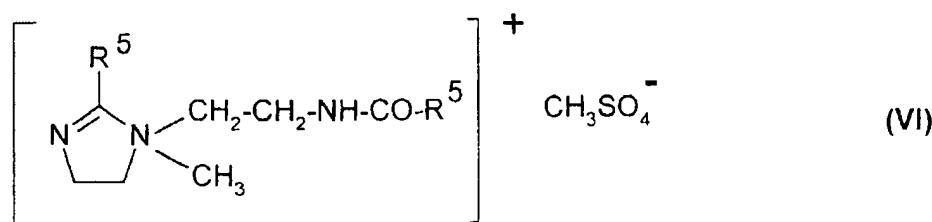


in which

the radicals R<sup>1</sup> R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, which are identical or different, are chosen from a saturated or unsaturated, linear or branched, aliphatic hydrocarbon radical comprising 1 to 30 carbon atoms; and a radical chosen from alkoxy, alkoxy carbonylalkyl, polyoxyalkylene, alkylamido, alkylamidoalkyl, hydroxyalkyl, aromatic, aryl and alkylaryl radicals comprising 12 to 30 carbon atoms, wherein at least one radical among R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is a radical comprising 8 to 30 carbon atoms;

X<sup>-</sup> is an anion chosen from halides, phosphates, acetates, lactates and alkyl sulphates;

(ii)<sub>2</sub> - imidazolium salts of the following formula (VI):

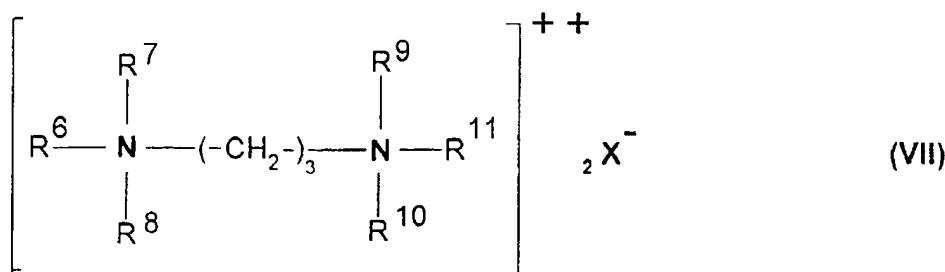


in which

R<sup>5</sup> is chosen from alkenyl radicals and alkyl radicals, said alkenyl radicals and alkyl radicals comprising 13 to 31 carbon atoms and being derived from tallow fatty acids;

A9  
Cont

(ii)<sub>3</sub> - quaternary diammonium salts of the following formula (VII):



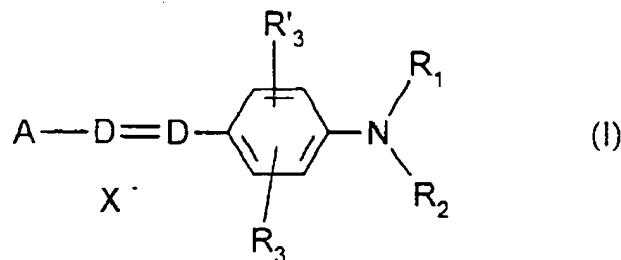
in which

R<sup>6</sup> is an aliphatic radical comprising 16 to 30 carbon atoms, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are chosen from hydrogen or an alkyl radical comprising 1 to 4 carbon atoms, and X<sup>-</sup> is an anion chosen from halides, acetates, phosphates and sulphates.

74. A multicompartiment dyeing kit wherein a first compartment contains a first composition and a second compartment contains a second composition,  
wherein said first composition comprises, in a medium suitable for dyeing:  
at least one cationic direct dye chosen from:

*A9*  
*Cont*

**a) cationic direct dyes of formula (I):**



in which:

D is a nitrogen atom or a -CH group,  
R<sub>1</sub> and R<sub>2</sub>, which are identical or different, are chosen from a hydrogen atom; a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a -CN, -OH or -NH<sub>2</sub> radical or form with each other or a carbon atom of the benzene ring a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with at least one C<sub>1</sub>-C<sub>4</sub> alkyl radical; and a 4'-aminophenyl radical,

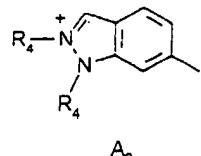
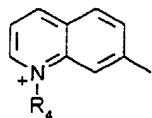
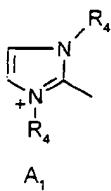
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Attorney Docket No.: 05725.0577-00

*Ag Cont*

$R_3$  and  $R'_3$ , which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a cyano radical; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an acetyloxy radical,

X<sup>-</sup> is an anion,

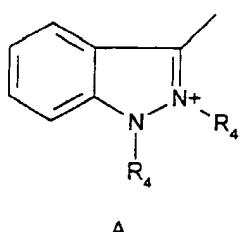
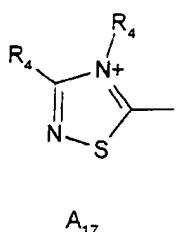
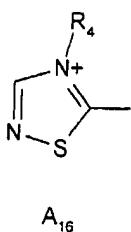
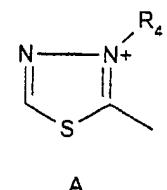
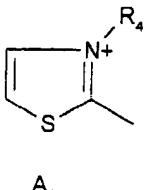
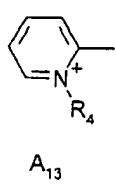
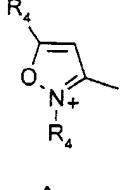
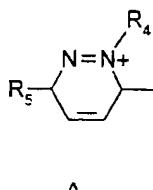
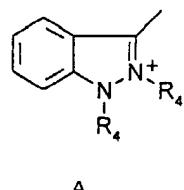
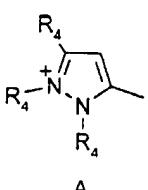
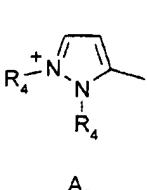
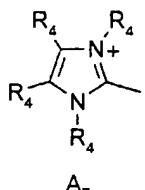
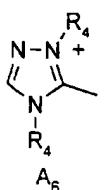
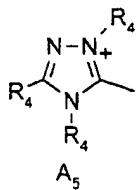
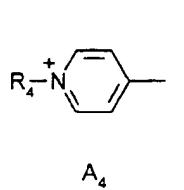
A is a group chosen from the following structures A<sub>1</sub> to A<sub>19</sub>:



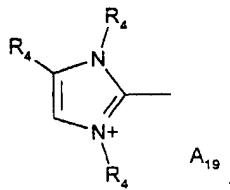
A<sub>2</sub>

A<sub>3</sub>

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and

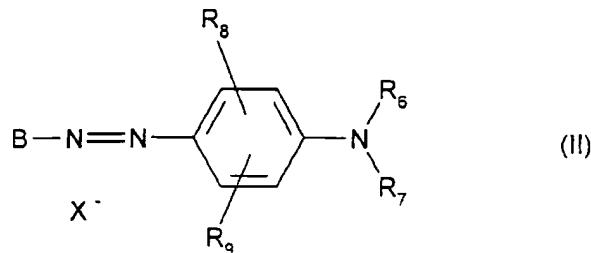


A9  
Cont

in which R<sub>4</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical which is unsubstituted or substituted with a hydroxyl radical and R<sub>5</sub> is a C<sub>1</sub>-C<sub>4</sub> alkoxy radical,

with the proviso that when D represents -CH, A is A<sub>4</sub> or A<sub>13</sub> and R<sub>3</sub> is different from an alkoxy radical, then R<sub>1</sub> and R<sub>2</sub> are not simultaneously hydrogen atoms;

**b) cationic direct dyes of formula (II):**



in which:

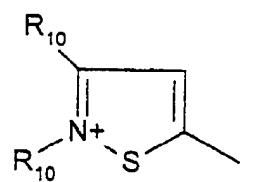
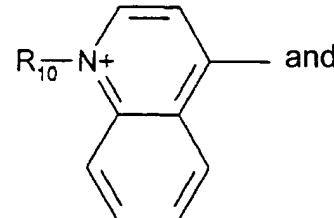
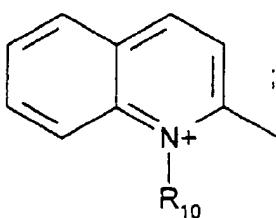
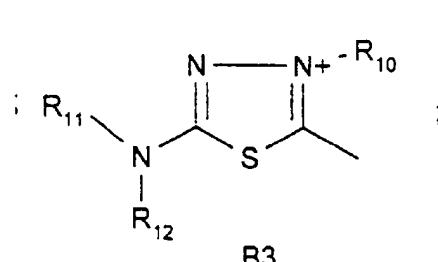
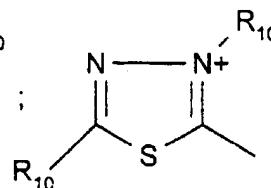
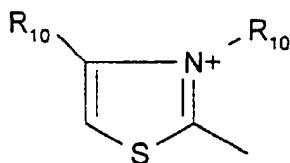
R<sub>6</sub> is a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

R<sub>7</sub> is chosen from a hydrogen atom; an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group; and a 4'-aminophenyl radical, or forms with R<sub>6</sub> a heterocycle optionally containing at least one of oxygen and nitrogen and which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

R<sub>8</sub> and R<sub>9</sub>, which are identical or different, are chosen from a hydrogen atom; a halogen atom chosen from bromine, chlorine, fluorine, and iodine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and a -CN radical,

X<sup>-</sup> is an anion,

B represents a group chosen from the following structures B1 to B6:



B4

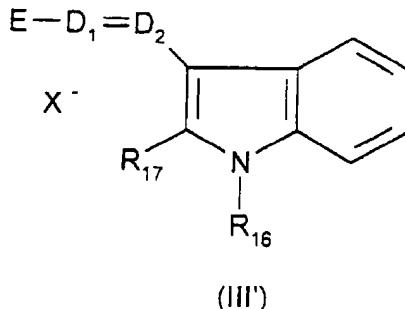
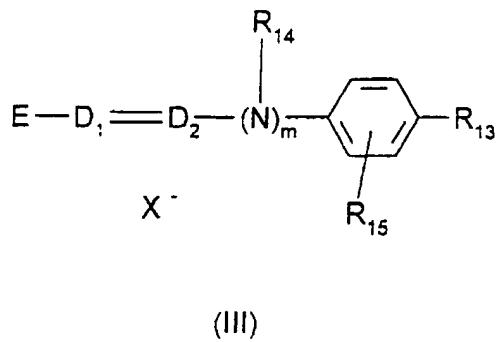
B5

B6

in which R<sub>10</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical, R<sub>11</sub> and R<sub>12</sub>, which are identical or different, are a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

c) cationic direct dyes of the following formula (III) and formula (III'):

AJ Conf



in which:

R<sub>13</sub> is chosen from a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical, a halogen atom chosen from bromine, chlorine, fluorine, and iodine; and an amino radical,

R<sub>14</sub> is a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub> alkyl radical or forms with a carbon atom of the benzene ring a heterocycle which is optionally oxygen-containing and is unsubstituted or substituted with at least one C<sub>1</sub>-C<sub>4</sub> alkyl group,

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Attorney Docket No.: 05725.0577-00

R<sub>15</sub> is a hydrogen or halogen atom chosen from bromine, chlorine, fluorine, and iodine,

R<sub>16</sub> and R<sub>17</sub>, which are identical or different, are a hydrogen atom or a C<sub>1</sub>-C<sub>4</sub> alkyl radical,

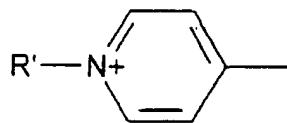
D<sub>1</sub> and D<sub>2</sub>, which are identical or different, are a nitrogen atom or a -CH group,

m = 0 or 1,

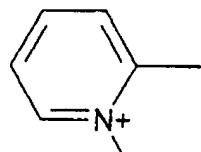
with the proviso that when R<sub>13</sub> is an unsubstituted amino group, then D<sub>1</sub> and D<sub>2</sub> simultaneously are -CH groups and m = 0,

X<sup>-</sup> is an anion,

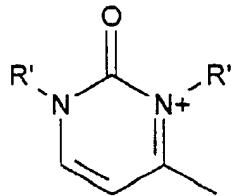
E is a group chosen from the following structures E1 to E8:



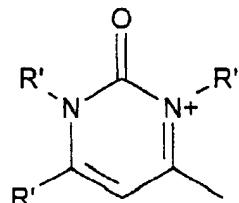
E1



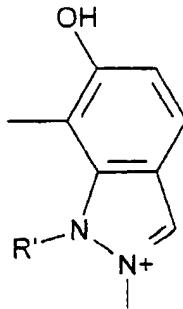
E2



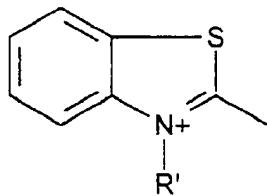
E3



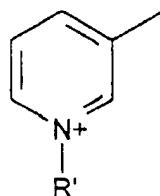
E4



E5

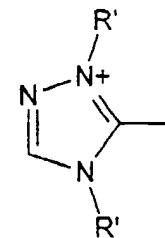


E6



E7

and

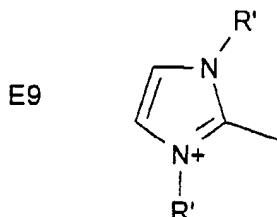


E8

in which R' is a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

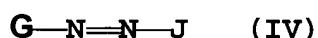
when  $m = 0$  and  $D_1$  is a nitrogen atom, then  $E$  may also be a group having the following structure E9:

a9  
Cont



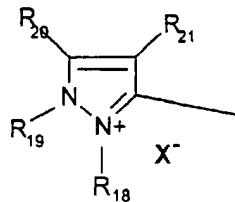
in which  $R'$  is a  $C_1-C_4$  alkyl radical, and

**d) cationic direct dyes of formula (IV):**

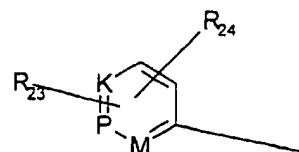
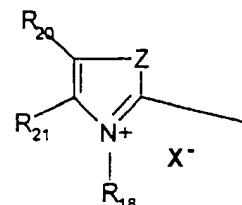


in which:

**the symbol G** is a group chosen from the following structures  $G_1$  to  $G_3$ :



G<sub>1</sub>



in which structures G<sub>1</sub> to G<sub>3</sub>,

R<sub>18</sub> is chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical; a phenyl radical which is unsubstituted or substituted with a C<sub>1</sub>-C<sub>4</sub> alkyl radical or with a halogen atom chosen from chlorine, bromine, iodine and fluorine;

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R<sub>19</sub> is a C<sub>1</sub>-C<sub>4</sub> alkyl radical or a phenyl radical;

R<sub>20</sub> and R<sub>21</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical and a phenyl radical, or form together in G<sub>1</sub> a benzene ring which is substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals, or form together in G<sub>2</sub> a benzene ring which is optionally substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy and NO<sub>2</sub> radicals;

R<sub>20</sub> may also be a hydrogen atom;

Z is an oxygen or sulphur atom or an -NR<sub>19</sub> group;

M is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

K is a group chosen from -CH; -CR wherein R is C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub>;

P is a group chosen from -CH; -CR wherein R denotes C<sub>1</sub>-C<sub>4</sub> alkyl; and -NR<sub>22</sub>(X<sup>-</sup>)<sub>r</sub> where r is zero or 1;

R<sub>22</sub> is chosen from an O<sup>-</sup> atom, a C<sub>1</sub>-C<sub>4</sub> alkoxy radical and a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

R<sub>23</sub> and R<sub>24</sub>, which are identical or different, are chosen from a hydrogen atom; a

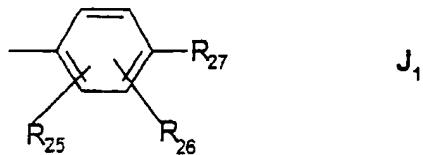
halogen atom chosen from chlorine, bromine, iodine and fluorine; a C<sub>1</sub>-C<sub>4</sub> alkyl radical;

a C<sub>1</sub>-C<sub>4</sub> alkoxy radical; and an -NO<sub>2</sub> radical;

X<sup>-</sup> is an anion;

**wherein J is chosen from:**

**-(a) a group having the following structure J<sub>1</sub>:**



A9  
Cont'd

in which structure  $J_1$ ,

$R_{25}$  is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a  $C_1$ - $C_4$  alkyl radical; a  $C_1$ - $C_4$  alkoxy radical; and a radical chosen from -OH, -NO<sub>2</sub>, -NHR<sub>28</sub>, -NR<sub>29</sub>R<sub>30</sub>, and -NHCO(C<sub>1</sub>-C<sub>4</sub>alkyl), or forms with  $R_{26}$  a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen and sulphur;

$R_{26}$  is chosen from a hydrogen atom; a halogen atom chosen from chlorine, bromine, iodine and fluorine; a  $C_1$ - $C_4$  alkyl radical; and a  $C_1$ - $C_4$  alkoxy radical, or forms with  $R_{27}$  or  $R_{28}$  a 5- or 6-membered ring optionally containing at least one heteroatom chosen from nitrogen, oxygen or sulphur;

$R_{27}$  is chosen from a hydrogen atom, an -OH radical, an -NHR<sub>28</sub> radical, and an -NR<sub>29</sub>R<sub>30</sub> radical;

$R_{28}$  is chosen from a hydrogen atom, a  $C_1$ - $C_4$  alkyl radical, a  $C_1$ - $C_4$  monohydroxyalkyl radical, a  $C_2$ - $C_4$  polyhydroxyalkyl radical, and a phenyl radical;

R<sub>29</sub> and R<sub>30</sub>, which are identical or different, are chosen from a C<sub>1</sub>-C<sub>4</sub> alkyl radical, a

C<sub>1</sub>-C<sub>4</sub> monohydroxyalkyl radical, and a C<sub>2</sub>-C<sub>4</sub> polyhydroxyalkyl radical; and

*A9*  
*Cont*

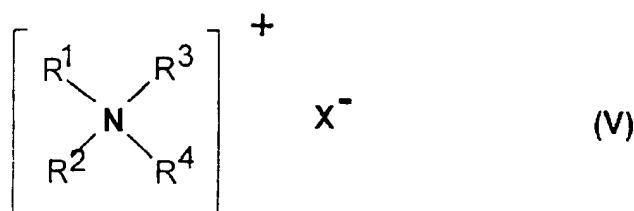
0 9 8 7 6 5 4 3 2 1 0

-(b) a 5- or 6- membered nitrogen-containing heterocycle group which optionally contains additional heteroatoms, carbonyl-containing groups, or a mixture of additional heteroatoms and carbonyl-containing groups and which is unsubstituted or substituted with at least one radical chosen from C<sub>1</sub>-C<sub>4</sub> alkyl, amino and phenyl radicals, and

wherein said second composition comprises, in a medium suitable for dyeing, at least one oxidizing agent; and

wherein either said first composition or said second composition further comprises at least one quaternary ammonium salt chosen from:

(ii)<sub>1</sub> - quaternary ammonium salts of the following formula (V):

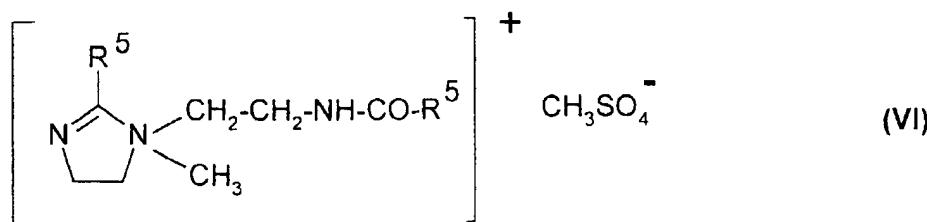


in which

the radicals R<sup>1</sup> R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, which are identical or different, are chosen from a saturated or unsaturated, linear or branched, aliphatic hydrocarbon radical comprising 1 to 30 carbon atoms; and a radical chosen from alkoxy, alkoxy carbonylalkyl, polyoxyalkylene, alkylamido, alkylamidoalkyl, hydroxyalkyl, aromatic, aryl and alkylaryl radicals comprising 12 to 30 carbon atoms, wherein at least one radical among R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is a radical comprising 8 to 30 carbon atoms;

X<sup>-</sup> is an anion chosen from halides, phosphates, acetates, lactates and alkyl sulphates;

(ii)<sub>2</sub> - imidazolium salts of the following formula (VI):

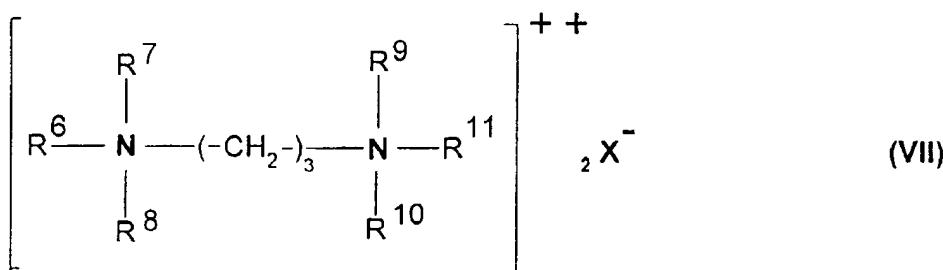


in which

R<sup>5</sup> is chosen from alkenyl radicals and alkyl radicals, said alkenyl radicals and alkyl radicals comprising 13 to 31 carbon atoms and being derived from tallow fatty acids;

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Cont

(ii)<sub>3</sub> - quaternary diammonium salts of the following formula (VII):

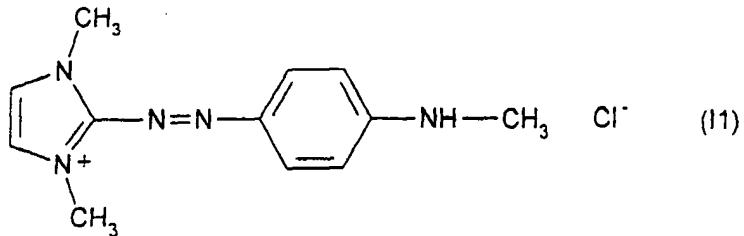


in which

R<sup>6</sup> is an aliphatic radical comprising 16 to 30 carbon atoms, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are chosen from hydrogen or an alkyl radical comprising 1 to 4 carbon atoms, and X<sup>-</sup> is an anion chosen from halides, acetates, phosphates and sulphates.

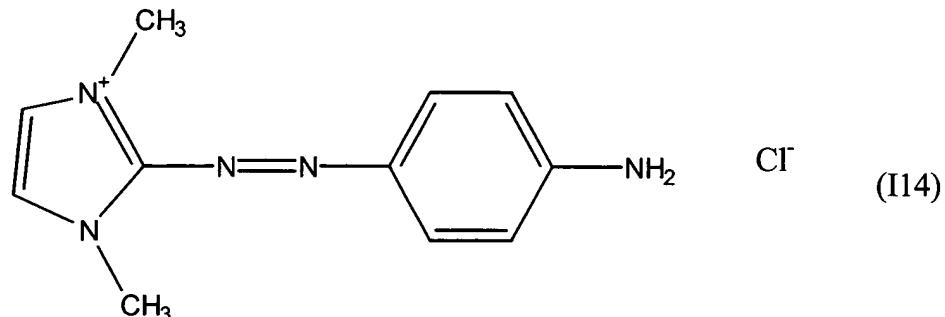
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Attorney Docket No.: 05725.0577-00

75. A composition for dyeing keratinous fibers, comprising a cationic direct dye of structure (I1):



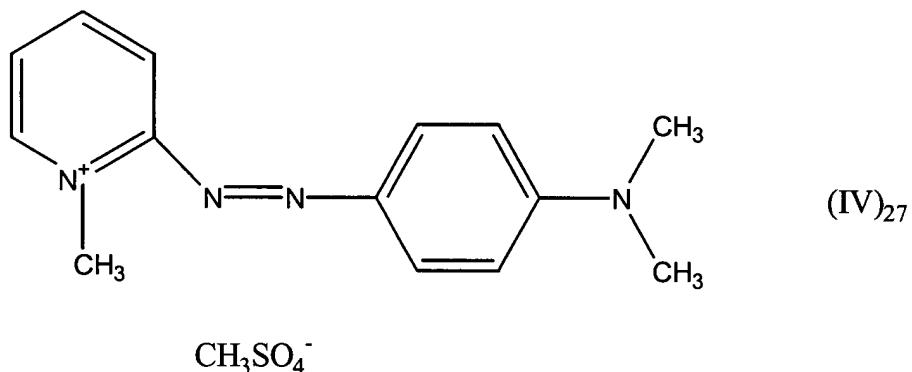
and oleocetyltrimethylhydroxyethylammonium chloride.

76. A composition for dyeing keratinous fibers, comprising:  
a cationic direct dye of structure (I14):



and behenyltrimethylammonium chloride.

77. A composition for dyeing keratinous fibers, comprising:  
a cationic direct dye of structure (IV)<sub>27</sub>:



and cetyltrimethylammonium chloride.--